SAN FRANCISCO
PLANNING DEPARTMENT

MEMO

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

DATE:	May 4, 2016
TO:	Planning Commission
FROM:	Chelsea Fordham, Environmental Planning Staff, (415) 575-9071
RE:	**May 19, 2016 Review and Comment Hearing** **Academy of Art, Draft Existing Sites Technical Memorandum**

PROJECT SUMMARY

The Draft Existing Sites Technical Memo (ESTM), published on May 4, 2016, examines the environmental impacts of past non-permitted work at 34 Academy of Art University (AAU) properties and recommends conditions of approval to remedy those impacts. The 30-day public comment period for the Draft ESTM document begins May 4, 2016 and extends through June 3, 2016. Review and Comment hearings for the document are scheduled for May 18, 2016 at the Historic Preservation Commission and May 19, 2016 at the Planning Commission. After the close of the public review period on the Draft ESTM the Planning Department will consider all comments received on the ESTM, incorporate changes as necessary, and finalize the ESTM. The Final ESTM will provide information to the Commission regarding the environmental effects of AAU's past unauthorized changes and AAU's ongoing operations. Additionally, the individual site assessments in Chapter 4 of the ESTM will be provided as part the case reports for all discretionary review and approval actions that come before the Planning Commission, including conditional use (CU) authorizations, building permits, or approvals authorized by other provisions of the San Francisco Planning Code (Planning Code).

The Draft ESTM, including a detailed project description, is available for public review and comment on the Planning Department's website at http://www.sf-planning.org/sfceqadocs.

BACKGROUND

The Academy of Art University was established in San Francisco in 1929 and, since that time, the school has expanded to 40 locations throughout the City. In occupying these sites, the school has typically changed the building's use and made tenant improvements without the benefit of building permits or entitlements such as Conditional Use Authorizations or Certificates of Appropriateness.

In 2008, AAU began working with the Planning Department to bring its then 34 existing sites into compliance with the Planning Code and to plan for proposed expansion. Since then, the Department has devoted a great deal of time and staff resources to AAU enforcement and has made significant progress with the inspection of all properties, correcting of life safety issues and removing of unpermitted signs that could not be brought into compliance with the Planning Code.

The Notice of Preparation (NOP), published in September, 2010 and the Draft EIR (Case No. 2008.0586E) published on February 25, 2015 for a 60-day public review period, which ended on April 27, 2015 analyzed AAU's proposed expansion and six project sites. The Public Hearing on the Draft EIR was held on April 16, 2015. During the Draft EIR public review period, the Planning Department received 109 comments orally and in writing from several public agencies, non-governmental organizations and individuals. Planning Department Staff continues to work on the Responses to Comments (RTC) document and it is anticipated that the RTC will be published for public review in June, 2016. The Final Environmental Impact Report will be before the Planning Commission for its consideration of certification in July 2016.

Due to the fact that projects are evaluated under CEQA from the existing conditions at the time of publication of the NOP, past actions, even if they occurred without attaining the necessary permits, are considered existing conditions. Therefore, the legalization approvals of the 34 locations occupied prior to the AAU NOP publication in 2010 are part of the baseline conditions for the AAU EIR. Since AAU had already changed uses at these sites prior to the NOP, for CEQA purposes there is little or no physical change to analyze. Thus the primary analysis of the prior unauthorized changes of use for purposes of the EIR will be to describe the required approvals to legalize these uses and the EIR will be used as the CEQA document for all approvals. The City will rely on the EIR and ESTM when considering AAU legalization approvals. Due to the need to analyze the impacts, cumulative and otherwise, of the entire AAU Project, the City has not acted on any parts of the Project pending the completion of the EIR.

To provide information to the Commission about the environmental effects of AAU's unpermitted changes of use and AAU's ongoing operations at these 34 locations, the Planning Department prepared a separate informational document, called the Existing Sties Technical Memorandum (ESTM). This memo evaluates the environmental effects from the time of occupation of the building by AAU in order to provide the Commission and the public with additional information to consider when deciding whether to authorize these uses after-the-fact. The Final ESTM will be used by the Commission for information in all AAU approvals in regards to the environmental effects of the past unauthorized changes and AAU's ongoing operations. Unlike the EIR, the ESTM is not required to go through a certification process by the Planning Commission, and its recommendations to decision-makers are not binding until approval of the conditions as part of any entitlements for each AAU existing site. The ESTM recommends conditions of approval for all 28 existing sites that require discretionary approval. Decision-makers can choose to adopt these recommended conditions of approval as proposed by the Planning Department or modify these conditions, or impose specific additional conditions of approval. These conditions of approval will be imposed upon adoption of the appropriate CU authorizations, building permits, legislative amendments, and Permits to Alter (PTA) or Certificates of Appropriateness (COA) from the Historic Preservation Commission.

ESTM OUTLINE

The Draft ESTM is organized into the following chapters:

- **Chapter 1, Introduction** – Discusses the background on the 34 AAU existing sites, shuttle system, on-site enrollment and faculty/staff, and the purpose and approach to analysis of AAU's existing sites. Chapter 1 also provides a summary of the environmental effects from the combined and individual effects from AAU's changes in use at the existing sites.
- **Chapter 2, Discretionary Actions –** Describes the required discretionary actions by the Planning Commission, Historic Preservation Commission, and Board of Supervisors for the AAU existing sites.

- **Chapter 3, Combined and Cumulative Analysis –** The analysis presented in Chapter 3 considers the combined effects of all 34 of AAU's existing sites by individual environmental resource topic. Generally, the AAU existing sites are located in the eastern portion of San Francisco, and therefore combined effects are considered for this geographic area of the City for most of the environmental topics. In cases where several existing sites are clustered together or located in the same neighborhood, Chapter 3 describes their potential combined effects. Impacts caused by increased population from on-site students and faculty/staff are discussed in the topics of Population and Housing, Public Services, Recreation, and Utilities and Service Systems.
- **Chapter 4, Environmental Analysis of Individual Sites –** Chapter 4 provides the individual, site-specific discussions of environmental effects associated with the prior changes in use for the 23 existing sites requiring approval of legislative amendments, CU authorizations, and/or building permits, and a site-specific historic architectural resource evaluation for the five sites that only require review by the Historic Preservation Commission (HPC) pursuant to Articles 10 or 11 of the Planning Code. Chapter 4 also provides a description and rationale for the proposed conditions of approval for the existing sites.
- **Draft AAU Transportation Management Plan (Appendix TDM) -** The Draft Transportation Management Plan (TMP) is a management and operating plan designed to provide multimodal access to existing and future AAU sites. The purpose of the plan is to ensure safe and efficient access to AAU sites by promoting and facilitating the use of AAU's shuttle service, nearby public transit services and pedestrian and bicycle infrastructure, thereby reducing transportation impacts on the surrounding neighborhoods. The Draft TDM presents existing sites figures of AAU's existing transportation conditions and proposed site figures incorporating the Planning Department's recommend conditions of approval.
- **Appendices –** Presents background analyzes conducted for the analysis of the following environmental resource topics: historic resources, transportation, noise, air quality, greenhouse gas emissions.

REQUESTED ACTION

The Department seeks general comments from the Planning Commission on the completeness and accuracy of the analysis and data presented in the Draft ESTM. Topics for comment could include, but are not limited to the following:

- Consistency and accuracy in the AAU existing sites descriptions.
- Appropriateness of the Conditions of Approval.
- Accuracy of the environment impact analysis for the 28 existing AAU sites analyzed in the ESTM.
- Review of AAU's Draft Transportation Management Plan (TMP), including any recommended improvements.

NEXT STEPS

May 18, 2016: Review and Comment at Historic Preservation Commission

May 19, 2016:	Review and Comment at Planning Commission
June 3, 2016:	Comment Period Ends
June 29, 2016:	Academy of Art University Response to Comments (RTC) Published
July 1, 2016:	Enforcement Deadline to complete ESTM and RTC
July 2016:	EIR Certification Hearing

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

PUBLIC NOTICE
Academy of Art University Project Existing Sites Technical Memorandum Available for Public Review

Date:	May 4, 2016
Case No.:	**2008.0586E**
Project Title:	**Academy of Art University** **Existing Sites Technical Memorandum (ESTM)**
Project Sponsor:	Gordon North – (415) 274-2200
Staff Contact:	Chelsea Fordham - (415) 575-9071 Chelsea.Fordham@sfgov.org

The Academy of Art University (AAU) Existing Sites Technical Memorandum (ESTM) has been prepared by the San Francisco Planning Department in connection with the discretionary approvals necessary to legalize AAU's use of 28 of its 34 existing sites. The report is available for public review on the Planning Department's Negative Declarations and EIRs web page (http://www.sf-planning.org/sfceqadocs). CDs are also available at the Planning Information Center (PIC) counter on the first floor of 1660 Mission Street, San Francisco. Referenced materials are available for review by appointment at the Planning Department's office on the fourth floor of 1650 Mission Street. (Call (415) 575-9030.)

Project Description: The Academy of Art University (AAU) was established in San Francisco in 1929. AAU is a private postsecondary academic institution that occupies buildings throughout the City (predominately in the northeast quadrant) for its existing art design programs. Since its founding, AAU has expanded its urban campus to 40 locations throughout San Francisco. As of September 2010, when the City and County of San Francisco published the Notice of Preparation (NOP) for the Academy of Art University Project Draft Environmental Impact Report (EIR), AAU occupied 34 buildings; the environmental effects of use of the existing building are evaluated in the Existing Sites Technical Memorandum (ESTM). The following 34 existing AAU sites are evaluated in the ESTM:

AAU Existing Site	Assessor's Block	Assessor's Lot
2340 Stockton Street (aka 2300 Stockton Street)	0018	004
2295 Taylor Street (aka 701 Chestnut Street)	0066	001
1727 Lombard Street	0506	036
2211 Van Ness Avenue	0570	005
2209 Van Ness Avenue	0570	029
2151 Van Ness Avenue	0575	015
1900 Jackson Street	0592	004A
1849 Van Ness Avenue	0618	001 & 001B
1916 Octavia Boulevard	0640	011
950 Van Ness Avenue (aka 963 O'Farrell Street)	0718	021/017
1153 Bush Street	0280	026

AAU Existing Site	Assessor's Block	Assessor's Lot
1080 Bush Street	0276	015
860 Sutter Street	0281	006
817-831 Sutter Street	0299	021
736 Jones Street	0298	027
1069 Pine Street	0275	008
1055 Pine Street	0275	009
740 Taylor Street	0283	012
680-688 Sutter Street	0283	007
620 Sutter Street	0283	004A
655 Sutter Street	0297	012
625–629 Sutter Street	0297	014
491 Post Street	0307	009
560 Powell Street	0285	010
540 Powell Street	0285	009
410 Bush Street	0270	007
77 New Montgomery Street (aka 79 New Montgomery Street)	3707	014
180 New Montgomery Street	3722	022
575 Harrison Street	3764	198-230
58–60 Federal Street	3774	074
601 Brannan Street	3785	132
168 Bluxome Street	3785	137–184
460 Townsend Street	3785	023
466 Townsend Street	3785	005

AAU typically changed the uses in the existing buildings it occupies and made tenant improvements. Changes in land uses and tenant improvements, including the addition of signage, are actions that are typically approved by the San Francisco Planning Department (Planning Department) or Planning Commission on a case-by-case basis through conditional use (CU) authorizations, building permits, or approvals authorized by other provisions of the San Francisco Planning Code (Planning Code). However, AAU changed uses or made improvements in 28 of the 34 existing sites without obtaining the necessary approvals. Of these 28, eight require legislative amendments and associated CU authorizations and building permits, nine require CU authorizations and associated building permits, and six require only building permits for a change in use. The remaining five sites are Article 10 or Article 11 properties that do not require approvals for a change in use, but must be evaluated for effects on historical resources, requiring either Permits to Alter (PTA) or Certificates of Appropriateness (COA) from the Historic Preservation Commission. Five of the existing sites that require a building permit also require review by the Historic Preservation Commission for either a PTA or a COA, for a total of 10 sites to be reviewed by the Historic Preservation Commission.

With respect to the eight sites requiring Planning Code legislative amendments, one site (601 Brannan Street) would require an amendment to permit educational services in the SALI (Service/Arts/Light Industrial) Zoning District, and seven sites would require an amendment to the Student Housing Legislation (Planning Code Section 317 (f)(1)) to permit use as student housing at AAU existing buildings that were previously permitted and used as non-student housing. AAU has filed applications for all required legislative amendments as of May 2016.

AAU expanded its operations to the existing 34 sites by occupying existing buildings and changing the uses to house AAU's operations, either for institutional use (including art studios, classrooms, and administrative offices) or residential use (for student housing and associated offices). Many of the AAU institutional buildings were previously used for retail, offices, schools, commercial uses, industrial, or churches. AAU residential buildings were converted from tourist hotels, residential hotels, group-housing, apartments, or other types of housing uses to student housing. Upon the occupation and change in use of AAU's existing buildings, AAU completed tenant improvements and life safety upgrades, typically including interior construction (drywall, paint, and lighting), security system installation, fire sprinkler/fire alarm upgrades, exterior signage, and, in limited cases, the addition (or replacement) of exterior lighting. AAU also replaced windows, installed awnings, and/or conducted seismic retrofit work in limited circumstances.

As part of the retroactive compliance process for 23 of AAU's existing sites, the ESTM presents an analysis of the environmental effects that have resulted from the changes in use and associated tenant improvements undertaken by AAU without the required change of use permits. The remaining five sites do not require approvals for a change in use, but must be evaluated for effects on historical resources. The ESTM also evaluates AAU's shuttle system serving all 34 sites. The ESTM analysis reviews, at a general level, the environmental effects associated with physical actions that can be deduced from the time prior to AAU occupation (i.e., prior to unpermitted occupation and use of the building) and ongoing operations.

The ESTM will be part of the record used by the Planning Department, the Planning Commission, the Board of Supervisors and the public in considering whether or not to issue the approvals for the 23 existing sites that require a CU authorization, building permit, legislative amendment, or all three. The ESTM will also be used by the Historic Preservation Commission in considering whether COAs or PTAs should be issued for the ten sites that require their review. Additionally, this ESTM includes recommended Conditions of Approval that would lessen any identified environmental effects at 28 of AAU's existing properties (the 23 CU authorization, building permit, legislative amendment and historic resource sites plus the five historic-resource-only sites).

A public hearing on the ESTM at the Planning Commission is scheduled for May 19, 2016 beginning at 12:00 p.m. (noon) or later, in City Hall, 1 Dr. Carlton B. Goodlett Place, Room 400. In addition, a Historic Preservation Commission hearing is scheduled for May 18, 2016, beginning at the same time and at the same location as the Planning Commission hearing. Written comments should be sent to Chelsea Fordham, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. The 30-day public review period ends on Friday, June 3, 2016, and a Final ESTM will be published incorporating all public comments.

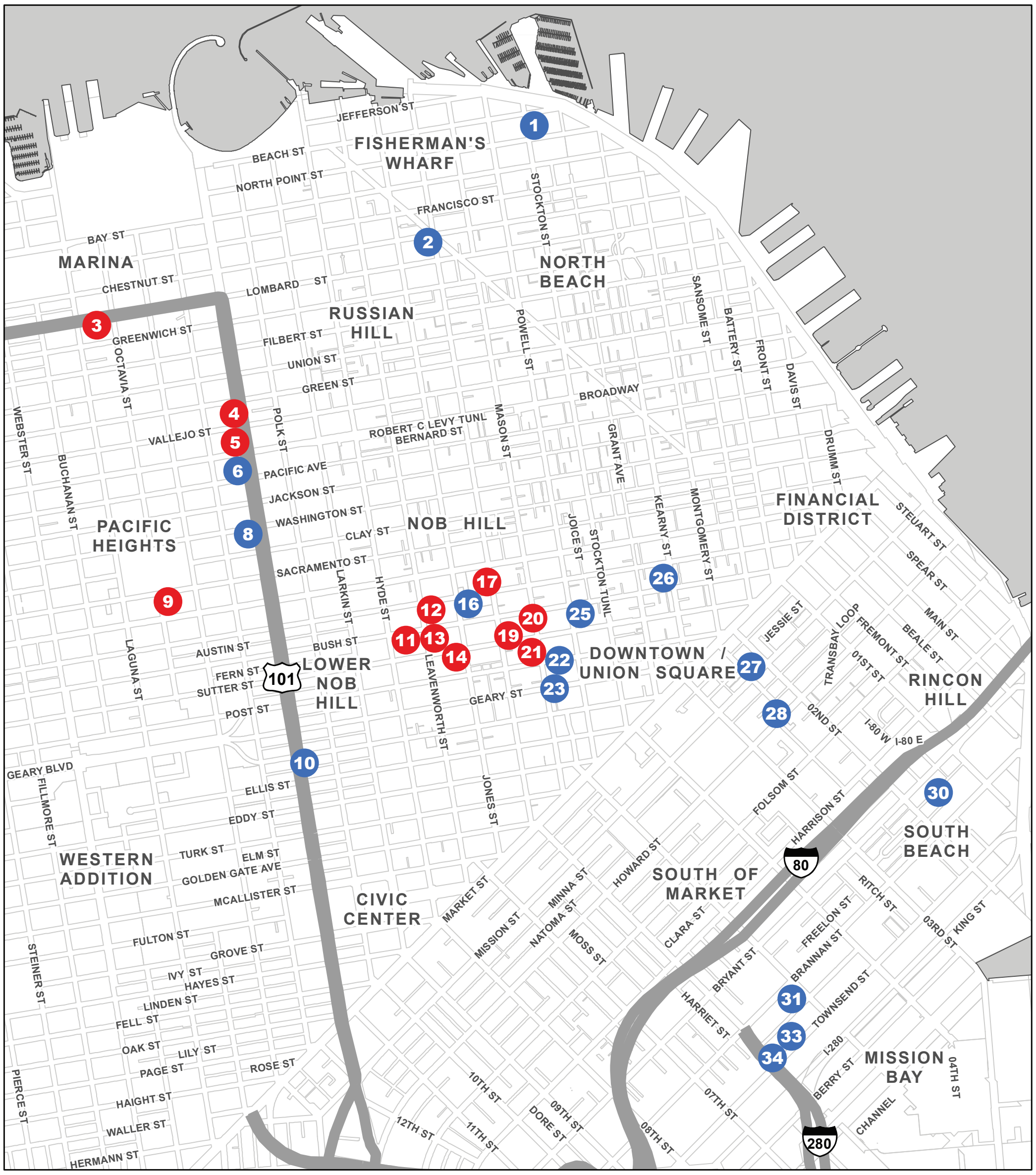
If you have questions concerning the project, please contact Chelsea Fordham at (415) 575-9071.

Members of the public are not required to provide personal identifying information when they communicate with the Commission or the Department. All written or oral communications, including submitted personal contact information, may be made available to the public for inspection and copying upon request and may appear on the Department's website or in other public documents.

EXISTING SITES TECHNICAL MEMORANDUM

ACADEMY OF ART UNIVERSITY PROJECT

VOLUME 1



CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2008.0586E

ESTM PUBLICATION DATE: MAY 4, 2016

ESTM PUBLIC HEARING DATE: MAY 19, 2016

ESTM PUBLIC REVIEW PERIOD: MAY 4, 2016 TO JUNE 3, 2016

SEAL OF THE CITY AND COUNTY OF SAN FRANCISCO

SAN FRANCISCO
PLANNING
DEPARTMENT

ACADEMY OF ART UNIVERSITY PROJECT

EXISTING SITES TECHNICAL MEMORANDUM

VOLUME 1

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2008.0586E

ESTM PUBLICATION DATE: MAY 4, 2016

EIR PUBLIC HEARING DATE: MAY 19, 2016

ESTM PUBLIC REVIEW PERIOD: MAY 4, 2016 TO JUNE 3, 2016

SAN FRANCISCO
PLANNING
DEPARTMENT

Contents

VOLUME 1:

VOLUME 2:

Appendices

(Provided on CD)

Figures

Photographs

Tables

List of Acronyms

AAU	Academy of Art University
ABAG	Association of Bay Area Governments
ACM	asbestos containing material
ACS	American Community Survey
ADA	Americans with Disabilities Act of 1990
AM	ante meridiem
AQTR	Air Quality Technical Report
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BRT	Bus Rapid Transit
CEQA	California Environmental Quality Act
City	City and County of San Francisco
CMP	Congestion Management Program
COA	Certificate of Appropriateness
CRHR	California Register of Historical Resources
CU	conditional use
dBA	A-weighted decibel
EIR	Environmental Impact Report
ES	existing site
ESA	Environmental Site Assessment
ESTM	Existing Sites Technical Memorandum
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
HMBP	Hazardous Materials Business Plan
HMUPA	Hazardous Materials Unified Program Agency
HPC	Historic Preservation Commission
HRA	Health Risk Assessment
HVAC	heating, ventilating, and air conditioning
ITE	Institute of Transportation Engineers
L_{dn}	day-night average sound level
L_{eq}	equivalent continuous noise level
LBP	lead-based paint
LED	light-emitting diode
MLP	maximum load point
MTS	Metropolitan Transportation System
Muni	San Francisco Municipal Railway
NCD	Neighborhood Commercial District
NO_x	nitrogen oxides
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PCB	polychlorinated biphenyl
PDA	Priority Development Area
PM	post meridiem
$PM_{2.5}$	particulate matter, 2.5 microns or less in width
PM_{10}	particulate matter, 10 microns or less in width
PTA	Permit to Alter
pounds/day	pounds per day
ROSE	Recreation and Open Space Element
RPD	San Francisco Recreation and Park Department
ROG	reactive organic gases
SFDPH	San Francisco Department of Public Health
SFFD	San Francisco Fire Department
SFMOMA	San Francisco Museum of Modern Art
SFMTA	San Francisco Municipal Transit Agency
SFPD	San Francisco Police Department
SFPL	San Francisco Public Library
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SOIS	Secretary of the Interior Standards
SoMa	South of Market
SOV	single-occupancy vehicle
SRO	single-room occupancy
TAC	toxic air contaminant
TDM	Transportation Demand Management
TDIF	Transportation Impact Development Fee
TSP	Transportation Sustainability Fee
UCSF	University of California San Francisco
UMB	unreinforced masonry building
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VdB	vibration decibel
YWCA	Young Women’s Christian Association

This page intentionally left blank.

1. INTRODUCTION

1.1. BACKGROUND

Academy of Art University (AAU) was established in San Francisco in 1929. AAU is a private postsecondary academic institution that occupies buildings throughout the City (predominately in the northeast quadrant) for its existing art and design programs. Since its founding, AAU has expanded its urban campus to 40 locations throughout San Francisco. As of September 2010, when the City and County of San Francisco (the City) published the Notice of Preparation (NOP) for the *Academy of Art University Project Draft Environmental Impact Report* (EIR), AAU occupied 34 buildings, which are referred to in this Existing Sites Technical Memorandum (ESTM) as the "existing sites." These 34 buildings are evaluated in this ESTM. AAU occupied or proposed changes to five additional sites, and one additional site was identified, after the NOP was published. Those six sites are addressed separately in the *Academy of Art University Project Draft EIR*, and are not discussed further in this document.[1, 2]

AAU typically changed the uses in the existing buildings it occupies and made tenant improvements. Changes in land uses and tenant improvements, including the addition of signage, are actions that are typically approved by the San Francisco Planning Department (Planning Department) or Planning Commission on a case-by-case basis through conditional use (CU) authorizations, building permits, or approvals authorized by other provisions of the San Francisco Planning Code (Planning Code). However, AAU changed uses or made improvements in 28 of the 34 existing sites without obtaining the necessary approvals. Of these 28, eight require legislative amendments and associated CU authorizations and building permits, nine require CU authorizations and associated building permits, and six require building permits only for a change in use. The remaining five sites are Article 10 or Article 11 properties that do not require approvals for a change in use, but must be evaluated for effects on historical resources, requiring either Permits to Alter (PTA) or Certificates of Appropriateness (COA) from the Historic Preservation Commission. Five of the existing sites that require a building permit also require review by the Historic Preservation Commission for either a PTA or a COA, for a total of 10 sites to be reviewed by the Historic Preservation Commission. All existing sites that are Category A properties will receive historic preservation design review. Category A properties are historical resources listed on or formally determined to be eligible for the California Register of Historic Resources, historical resources listed on adopted local registers, or properties that have been determined to appear or that may become eligible for the California Register of Historic Places.

Six of the 34 existing sites require no discretionary City approvals because AAU's occupation did not result in a change of use and no tenant improvements were made that required discretionary approval from the Planning Department. From 2007 to 2014, AAU applied for required building permits and/or CU authorizations for 21 of the existing sites. With respect to the eight sites

[1] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, Case No. 2008.0586E, February 25, 2015.

[2] The six sites analyzed in the Draft EIR are 2801 Leavenworth Street, 700 Montgomery Street, 625 Polk Street, 150 Hayes Street, 121 Wisconsin Street, and 2225 Jerrold Street.

requiring Planning Code legislative amendments, one site (601 Brannan Street) would require an amendment to permit educational services in the SALI (Service/Arts/Light Industrial) Zoning District, and seven sites would require an amendment to the Student Housing Legislation to permit use as student housing at AAU existing buildings that were previously permitted and used as non-student housing.[3] AAU has filed applications for all required legislative amendments as of May 2016.

1.2. AAU'S EXISTING SITES

As of May 2016, AAU's 34 existing buildings contained approximately 1,518,796 square feet of institutional and residential uses. Of these 34 existing sites, 28 properties require one or more discretionary approvals from the Planning Department and Board of Supervisors.[4] Eight of the 34 properties contain uses that are not permitted by the Planning Code. Legislative amendments would be required for these eight sites to allow the conversion of residential uses to student housing (Planning Code Section 317(f)(1), and to allow educational services in the SALI (Service/Arts/Light Industrial) Zoning District. Seventeen of the 34 sites require CU authorization and 23 require building permits. Thus, most of the 28 properties require more than one approval action. Ten of the 28 existing sites are Article 10 or Article 11 buildings[5] that require review to determine whether a COA or a PTA should be issued for exterior or interior alterations; five of these ten sites would not require approval of a change of use. Six of the 34 sites do not require any discretionary approvals because the uses either were previously approved or were not subject to any discretionary review. This document evaluates the 28 existing sites that require some type of discretionary review and approval; however, to provide the context for all of AAU's existing operations, the six additional sites that do not require any City review or permits are taken into consideration and discussed where appropriate, such as in some of the combined and cumulative analyses in Chapter 3.

Figure 1, Existing AAU Campus Sites, p. 1-4, shows the location of these existing sites. Table 1, Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities, pp. 1-5 to 1-6, and Table 2, Summary of Uses and Required Discretionary Actions for AAU's Existing Residential Facilities, pp. 1-7 to 1-8, list each building and note the square footage

3 The seven buildings that would require an amendment to the Student Housing Legislation are those at 2211 Van Ness Avenue, 2209 Van Ness Avenue, 1916 Octavia Street, 1153 Bush Street, 1080 Bush Street, 860 Sutter Street, and 1055 Pine Street. All are listed in Table 2 on pp. 1-7 to 1-8 below.

4 Actions by the Planning Commission to review and approve CUs under Planning Code Sections 303 and 304, actions by the Historic Preservation Commission to approve Certificates of Appropriateness and Permits to Alter (Planning Code Section 1006), and actions by the Board of Supervisors to approve amendments to the Planning Code are discretionary actions. In addition, the Planning Commission has the discretion to review any building permit application pursuant to Planning Code Sections 311(d) and 312(e). While Planning Department staff typically carry out review of building permits, as delegated by the Commission, the Commission may choose to consider a building permit at one of its public meetings. The process of Planning Commission consideration of a building permit is called "Discretionary Review."

5 As of 2015, Planning Code Article 10 identifies 269 landmark structures and 13 historic districts within the City; collectively, the landmark structures and historic districts are referred to as Article 10 resources. Article 10 seeks to preserve and protect cultural resources that embody the architecture, history, and cultural heritage of the City. Planning Code Article 11 identifies six conservation districts that are located exclusively in San Francisco's downtown core area. Unlike the Article 10 historic districts, which recognize historic and cultural significance, Article 11 conservation districts seek to designate and protect buildings based on architectural quality and contribution to the environment.

occupied by AAU, the year the building was occupied by AAU, the building capacity, the Zoning District, the building's permitted use prior to AAU, the change in use, AAU's current use, and the entitlement(s) required. As shown in Figure 1, which shows all 34 existing sites, 17 of AAU's facilities are institutional and 17 facilities are residential. In Section 4.1, Individual Site Assessments, the individual site assessments are presented by "existing site number" (ES-1, ES-2, etc.), as identified in Table 1, Table 2, and Figure 1.

AAU expanded its operations to the existing 34 sites by occupying existing buildings and changing the uses to house AAU's operations, either for institutional use (including art studios, classrooms, and administrative offices) or residential use (for student housing and associated offices). Many of the AAU institutional buildings were previously used for retail, offices, schools, commercial uses, light industrial (production, distribution, and repair use), or churches. AAU residential buildings were converted from tourist hotels, residential hotels, group-housing, apartments, or other types of housing uses to student housing. Upon the occupation and change in use of AAU's existing buildings, AAU completed tenant improvements and life safety upgrades, typically including interior construction (drywall, paint, and lighting), security system installation, fire sprinkler/fire alarm upgrades, exterior signage, installed mechanical equipment, and, in limited cases, the addition (or replacement) of exterior lighting. AAU also replaced windows, installed awnings, and/or conducted seismic retrofit work in limited circumstances.

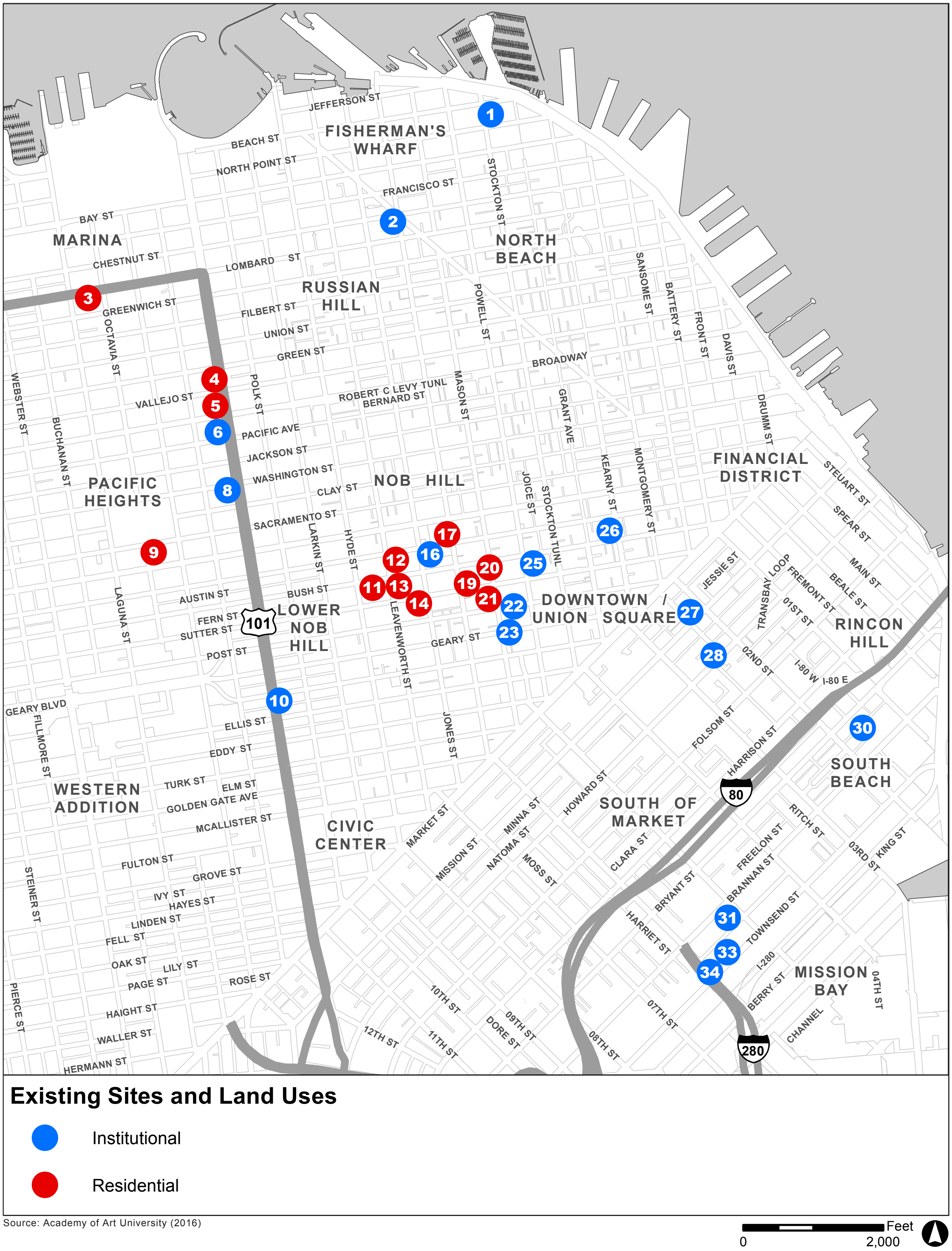
In 2010, AAU had an enrollment of 11,182 on-site students and employed 1,294 faculty and 997 staff. In addition to on-site students, AAU had an enrollment of 6,529 students who took classes online in 2010. Approximately 3,207 AAU students (18 percent) were hybrid students, or students who take classes both at AAU facilities and online; these students are included in the total enrollment figure of on-site students. In 2016, AAU has an enrollment of 8,649 on-site students and employs 1,031 faculty and 923 staff.[6] The ESTM only analyzes on-site students and employees because they would result in any of the physical impacts on the environment that may have occurred from AAU's occupation and changes in use.

As of the 2016 spring semester, approximately 781 units or rooms are available at the 17 residential facilities with a total of approximately 1,810 beds. In the spring 2010 semester, 1,319 bed spaces were occupied by students, 61 were occupied by faculty, and 123 were used for "other uses," leaving approximately 280 bed spaces available. The "other uses" associated with bed spaces included recreation rooms, study rooms, offices for AAU housing staff, temporary housing for AAU visitors, and permanent non-AAU tenants. In all, 14 non-AAU permanent tenants currently reside in six of AAU's residential locations.[7] These permanent tenants lived in the buildings when they were occupied by AAU and chose to continue residence when the buildings were subsequently changed to student housing use.

---

6 Academy of Art University, *2015 Update to Academy of Art University's Institutional Master Plan*, submitted November 17, 2015, p. 9.

7 Non-AAU residents currently occupy units at 1080 Bush Street (ES-12), 1900 Jackson Street (ES-7), 736 Jones Street (ES-15), 560 Powell Street (ES-24), 680 Sutter Street (ES-19), and 860 Sutter Street (ES-13).



Source: Academy of Art University (2016)

AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 1: EXISTING AAU CAMPUS SITES

Table 1. Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities

Existing Site	Address	AAU Use in Building (Square Footage)	Year Occupied by AAU	Capacity (2016)	Zoning District & Special Use District	Permitted Use Prior to AAU Occupation	Change in Use	Current Use (2016)	Required Entitlements			
									CU Authorization	Building Permit	Legislative Amendment	Certificate of Appropriateness/ Permit to Alter
ES-1	2340 Stockton Street	44,530	1991	391 (380 students, 11 faculty/staff)	C-2 (Community Business) WR-2 (Waterfront Special Use District No. 2)	Otis Elevator offices (office)	Office to postsecondary educational institution	Classrooms (16), labs, art studios, offices, student and faculty lounges		Planning Code Section 171		
ES-2	2295 Taylor Street (aka 701 Chestnut Street)	10,440	2003	10 (8 students, 2 faculty/staff)	North Beach Neighborhood Commercial District North Beach Special Use District	Clothing store (retail)	Retail to postsecondary educational institution	Graduate studios, office	Planning Code Sections 178(e)(5), 722.56	Planning Code Section 171		
ES-6	2151 Van Ness Avenue	27,912	2005	989 (Note that in 2016 approximately 20 students use this building daily)	RC-4 (Residential-Commercial-Combined, High-Density) Van Ness Special Use District	St. Brigid Church (religious institution)	Religious institution to postsecondary educational institution	Auditorium, classrooms (3), art studios	Planning Code Section 303, pursuant to Section 209.1	Planning Code Section 171		
ES-8	1849 Van Ness Avenue*	107,908	1998	695 (645 students, 50 faculty/staff)	RC-4 (Residential-Commercial-Combined, High-Density) Van Ness Special Use District	Furniture store (retail)	Retail to postsecondary educational institution	Classrooms (39), labs, art studios, offices, student and faculty lounges, classic vehicle museum, reception space	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171		
ES-10	950 Van Ness Avenue / 963 O'Farrell Street	50,700	2009	7 staff	RC-4 (Residential-Commercial-Combined, High-Density) Van Ness Automotive Special Use District Van Ness Special Use District	Automobile dealership (automobile sales)	Retail (automobile sales) to an institution (museum)	Classic vehicle museum, storage, offices	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171		
ES-16	1069 Pine Street	1,875	2000	199	RM-4 (Residential, Mixed, High Density) Nob Hill Special Use District	Retail	Retail to postsecondary educational institution	Recreation	Planning Code Section 303, pursuant to Section 209.2	Planning Code Section 171		
ES-18	740 Taylor Street	9,100	1990	99 (84 students, 15 faculty/staff)	RC-4 (Residential-Commercial-Combined, High-Density)	School, commercial store	None	Classrooms (5), labs, art studios, offices				
ES-22	625–629 Sutter Street	26,322	1968	155 (120 students, 35 faculty/staff)	C-3-G (Downtown General Commercial)	June Terry School (school)	None	Classrooms (6), labs, art studios, offices, gallery, darkroom				Article 11
ES-23	491 Post Street	37,730	2002	1,063 (Note that in 2016 approximately 124 students and 25 faculty/staff use this building daily)	C-3-G (Downtown General Commercial)	Church	Religious institution to postsecondary educational institution	Auditorium, classrooms (7), offices		Planning Code Section 171		Article 10
ES-25	540 Powell Street	30,900	1977	313 (288 students, 25 faculty/staff)	C-3-R (Downtown Retail)	School, Erotic Art Museum, and hotel	None	Classrooms (13), labs, art studios, offices, art store				Article 11
ES-26	410 Bush Street	43,557	1994	264 (229 students, 35 faculty/staff)	C-3-O (Downtown Office)	School, United Way offices (office)	None	Classrooms (13), labs, art studios, offices, gallery				Article 11

Existing Site	Address	AAU Use in Building (Square Footage)	Year Occupied by AAU	Capacity (2016)	Zoning District & Special Use District	Permitted Use Prior to AAU Occupation	Change in Use	Current Use (2016)	Required Entitlements			
									CU Authorization	Building Permit	Legislative Amendment	Certificate of Appropriateness/ Permit to Alter
ES-27	77 New Montgomery Street (aka 79 New Montgomery Street)	147,509	1996	908 (741 students, 167 faculty/staff)	C-3-O(SD) (Downtown Office - Special Development)	Office	Office to postsecondary educational institution	Administrative offices, classrooms (31), labs, art studios, gallery, theater		Planning Code Section 171		Article 11
ES-28	180 New Montgomery Street	190,066	1995	1,716 (1,430 students, 286 faculty/staff)	C-3-O(SD) (Downtown Office - Special Development)	Pacific Bell offices (office)	Office to postsecondary educational institution	Classrooms (73), labs, art studios, library, offices, café		Planning Code Section 171		Article 11
ES-30	58–60 Federal Street	91,522	2002	636 (595 students, 41 faculty/staff)	MUO (Mixed Use - Office)	Office	Office to educational services	Classrooms (25), labs, art studios, offices, art store, student and faculty lounges		Planning Code Section 171		Article 10
ES-31	601 Brannan Street	73,666	2007	575 (514 students, 61 faculty/staff)	SALI (Service/Arts/Light Industrial) Western SoMa Special Use District	Digital Think offices (office)	Office to educational services	Classrooms (37), library, labs, art studios, recreation	Planning Code Section 823(c)	Planning Code Section 171	Planning Code Section 846.32	
ES-33[1]	460 Townsend Street*	25,920	2009	129 (114 students, 15 faculty/staff)	WMUO (WSoMa Mixed Use-Office) Western SoMa Special Use District	Industrial/Wholesale	Industrial/wholesale to educational services	Classrooms (6), art studios, student and faculty lounges	Planning Code Section 303, pursuant to 845.32	Planning Code Section 171		
ES-34[1]	466 Townsend Street*	113,436	2005	740 (675 students, 65 faculty/staff)	WMUO (WSoMa Mixed Use-Office) Western SoMa Special Use District	Internet service exchange (industrial)	Industrial/internet services exchange to educational services	Classrooms (32), labs, art studios, student and faculty lounges, art store	Planning Code Section 303, pursuant to 845.32	Planning Code Section 171		
Capacity Total		***1,033,093***	-	***8,683 (7,865 students, 818 faculty/staff)***								
Capacity of Evaluated Sites[2]		***923,214***	-	***7,852 (7,144 students, 708 faculty/staff)***								

Notes:

* = Category A property that would undergo historic preservation design review.

[1] Properties at 460 and 466 Townsend Street contain Production, Distribution, and Repair (PDR) uses. The Urgency Ordinance adopted by the Board of Supervisors on December 8, 2014, provides an extension of the interim PDR Conversion moratorium. The moratorium prohibits the conversion of PDR uses in the proposed Central SoMa Plan Area. If permanent controls do not permit institutional uses within the WSoMa Mixed Use-Office District, a legislative amendment to the Planning Code would be the only path for legalization.

[2] The capacity of the evaluated sites is the aggregate of the 28 existing sites that are analyzed in this ESTM.

Sources: AAU, *2011 Institutional Master Plan*, 2011; AAU, *2015 Institutional Master Plan Update*, 2015; and San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015.

Table 2. Summary of Uses and Required Discretionary Actions for AAU's Existing Residential Facilities

Existing Site	Address	AAU Use in Building (square footage)	Year Occupied by AAU	Capacity	Zoning District & Special Use District	Permitted Use Prior to AAU Occupation	Change in Use	Current Use	Required Entitlements			
									CU Authorization	Building Permit	Legislative Amendment	Certificate of Appropriateness/ Permit to Alter
ES-3	1727 Lombard Street*	16,371	2007	81 beds	NC-3 (Moderate-Scale Neighborhood Commercial) RH-2 (Residential, House, Two-Family)	Tourist motel (52 rooms)	Tourist motel to student housing (group housing for a postsecondary educational institution)	52 group-housing rooms	Planning Code Section 303, pursuant to Section 209.1	Planning Code Section 171		
ES-4	2211 Van Ness Avenue	5,076	2005	20 beds	RC-3 (Residential-Commercial, Medium Density)	Dwelling units (2 units) and ground-floor commercial	Dwelling units and commercial to student housing (group housing for a postsecondary educational institution)	3 dwelling units and 8 group-housing rooms	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-5	2209 Van Ness Avenue*	11,897	1998	56 beds	RC-3 (Residential-Commercial, Medium Density)	Dwelling unit (1 unit)	Dwelling unit to student housing (group housing for a postsecondary educational institution)	22 group-housing rooms	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-7	1900 Jackson Street	10,798	1997	28 beds	RH-2 (Residential, House, Two-Family)	Dwelling units (9 units)	None	Dwelling units (9 units)				
ES-9	1916 Octavia Street	13,171	1996	47 beds	RH-2 (Residential, House, Two-Family)	Residential hotel (22 rooms)	Residential hotel to student housing (group housing for a postsecondary educational institution)	22 group-housing rooms	Planning Code Section 303, pursuant to 209.1	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-11	1153 Bush Street*	10,456	1998	37 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Dwelling unit (1 unit) and residential hotel (14 rooms)	Dwelling unit and group housing to student housing (group housing for a postsecondary educational institution)	15 group-housing rooms	Planning Code Section 303, pursuant to 209.3	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-12	1080 Bush Street*	24,528	1999	122 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Dwelling units (42 units) and residential hotel (15 rooms)	Residential hotel to student housing (group housing for a postsecondary educational institution)	42 dwelling units, 15 group-housing rooms	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-13	860 Sutter Street*	35,292	2003	184 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Tourist hotel (39 rooms) and residential hotel (50 rooms)	Tourist and residential hotel to student housing (group housing for a postsecondary educational institution)	89 group-housing rooms, café	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-14	817–831 Sutter Street*	51,990	2006	222 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Tourist hotel (114 rooms)	Tourist hotel to student housing (group housing for a postsecondary educational institution)	114 group-housing rooms	Planning Code Section 303, pursuant to Section 209.3	Planning Code Section 171		

Existing Site	Address	AAU Use in Building (square footage)	Year Occupied by AAU	Capacity	Zoning District & Special Use District	Permitted Use Prior to AAU Occupation	Change in Use	Current Use	Required Entitlements			
									CU Authorization	Building Permit	Legislative Amendment	Certificate of Appropriateness/ Permit to Alter
ES-15	736 Jones Street	20,321	1994	70 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Dwelling units (34 units)	None	Dwelling units (34 units)				
ES-17	1055 Pine Street*	36,213	2000	155 beds	RM-4 (Residential, Mixed, High Density) Nob Hill Special Use District	Residential hotel (59 rooms)	Residential hotel to student housing (group housing for a postsecondary educational institution)	81 group-housing rooms, café	Planning Code Sections 303, pursuant to 209.2	Planning Code Section 171	Planning Code Section 317(f)(1)	
ES-19	680-688 Sutter Street	15,996	1996	67 beds	C-3-G (Downtown General Commercial)	Dwelling units (28 units) and commercial	None	Dwelling units (28 units)				Article 11
ES-20	620 Sutter Street	67,775	2005	129 beds	C-3-G (Downtown General Commercial)	Tourist hotel (65 rooms)	Tourist hotel to student housing (group housing for a postsecondary educational institution)	65 group-housing rooms, theater, dance studio, pool, fitness center		Planning Code Section 171		Article 11
ES-21	655 Sutter Street	37,716	1999	177 beds	C-3-G (Downtown General Commercial)	Office	None (Building permits for change of use were previously approved)	61 group-housing rooms and retail				Article 11
ES-24	560 Powell Street	18,790	1996	64 beds	RC-4 (Residential-Commercial-Combined, High-Density)	Dwelling units (27 units)	None	Dwelling units (27 units)				
ES-29	575 Harrison Street	35,491	1996	132 beds	MUO (Mixed-Use Office)	Live/work units (33 units)	None	Live/work units (33 units)				
ES-32	168 Bluxome Street	73,822	2004	219 beds	SALI (Service/Arts/Light Industrial) Western SoMa Special Use District	Live/work units (61 units)	None	Live/work units (61 units)				
Capacity Total		***485,703***	-	***1,810 beds (residents)***								
Capacity of Evaluated Sites[1]		***272,769***	-	***1,053 beds***								

Notes:
* = Category A property that would undergo historic preservation design review.
[1] The capacity of the evaluated sites is the aggregate of the 28 existing sites that are analyzed in this ESTM.

Sources: AAU, *2011 Institutional Master Plan*, 2011; AAU, *2015 Institutional Master Plan Update*, 2015; and San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015.

1.3. PURPOSE OF THE EXISTING SITES TECHNICAL MEMORANDUM

In San Francisco, a change in use under the Planning Code is considered a discretionary action and requires a permit. Authorization of most permits is a discretionary action because of the ability of the Planning Commission to take review under various provisions of the Planning Code. In the normal course of review of a project sponsor's application for a CU or building permit application, the Planning Department would conduct environmental review under the California Environmental Quality Act (CEQA) for the "project" contemplated in the application.[8] For six of AAU's 34 existing sites, discretionary review was either completed or determined to not be required; however, the other 28 existing sites were not reviewed because AAU did not apply for and receive the appropriate permits.

The *Academy of Art University Project Draft EIR* evaluates potential future growth in 12 study area neighborhoods on the east side of the City, six additional specific project sites, and the legalization of pre-NOP changes at AAU's existing sites. Because the baseline date for its analysis is September 2010 when the AAU NOP was published, the Draft EIR does not provide an analysis of the physical environmental changes, if any, caused by the prior unauthorized changes of use or tenant improvements undertaken at existing properties. Therefore, as part of the retroactive compliance process for 28 of AAU's existing sites, this ESTM presents an analysis of the environmental effects, if any, that have resulted from the changes in use and associated tenant improvements undertaken by AAU without the required CU authorizations, building permits, legislative amendments, and historic resource evaluations. This ESTM also evaluates AAU's shuttle system serving all 34 sites. This ESTM analysis reviews, at a general level, the environmental effects associated with physical actions that can be deduced from the time prior to AAU occupation (i.e., prior to unpermitted conversion of the building) and ongoing operations. For ongoing operational effects, the analyses use the most up-to-date data available.

This ESTM will be part of the record used by the Planning Department, the Planning Commission, the Board of Supervisors and the public in considering whether or not to issue the approvals for the 23 existing sites that require a CU authorization, building permit, legislative amendment, or all three. The ESTM will also be used by the Historic Preservation Commission in considering whether COAs or PTAs should be issued for the ten sites that require their review. Additionally, this ESTM includes recommended Conditions of Approval that would lessen any identified environmental effects at 28 of AAU's existing properties (the 23 CU authorization, building permit, legislative amendment, and historic resource sites plus the five historic-resource-only sites). These conditions are described as part of the analysis of each individual AAU site for which City approvals are required.

[8] The California Environmental Quality Act defines a "project" that is subject to environmental review as an action that may cause a physical change in the environment and that is undertaken by a public agency, is supported by a grant from a public agency, or involves the issuance of an entitlement by a public agency (CEQA Section 21065).

1.4. APPROACH TO ANALYSIS OF EFFECTS

Because there may have been gaps in building occupancy between the prior uses and AAU occupancy in some cases, the analysis of effects assumes that there was no prior occupancy at any of the existing sites. This provides for a conservative analysis of all environmental topics related to use of a building, such as transportation and air quality, because it does not account for previous uses. By assuming that the buildings were vacant prior to AAU occupation, the analysis captures the direct environmental effects that would result from AAU's use of the existing sites without considering the baseline environmental effects that could have transpired from the previous uses and their associated building populations. Any ongoing operational effects from AAU's use were determined based on the most up-to-date data available. Furthermore, because the changes in use at the existing sites discussed in this ESTM happened in the past, occurred without the benefit of required approvals from the City, and were not analyzed by appropriate City decision-makers prior to their occurrence, some data related to the prior occupation must be estimated using the best information available at this time. Where estimates are used in this document, that fact is noted.

As noted above, AAU has applied for CU authorizations, building permits, historic preservation design review, and/or legislative amendments for 23 of its existing sites. The effect of potential approval of all discretionary actions for these 23 sites is discussed on a site-by-site basis in Section 4.2, Individual Site Assessments. Ten of the existing properties are designated in Article 10 or Article 11 of the Planning Code and, as such, require PTAs or COAs to approve work performed without benefit of a permit. The effects of potential approval of the PTAs/COAs for the five sites which also require a change in use permit are discussed in Section 4.2. The effects of potential approval of the remaining five Article 10 or Article 11 properties are discussed in Section 4.3, Article 10 or Article 11 Buildings.

The effects of approving all discretionary actions at the 28 existing sites are also analyzed in a combined context to understand the overall effect these changes have had and continue to have when combined. For all 28 existing sites, the aggregate change in use is identified as 1,053 beds (residents), 7,144 students, and 708 faculty and staff, which is the combined capacity of the 28 buildings. This is not a cumulative analysis; rather, it is a discussion that considers the effects of the combined changes in use and appearance together to better understand the combined consequences. The in-combination effects of all 34 sites are presented in Chapter 3, Combined and Cumulative Analysis, which analyzes the overall population of AAU students and faculty/staff. Similarly, the shuttle system analysis, presented in Section 3.4.6 as part of the combined transportation discussion, considers all 34 existing sites. Program- and project-level cumulative analyses were completed for the *Academy of Art University Project Draft EIR* reflecting AAU future growth and the 40 properties occupied by AAU, respectively.[9]

1.5. SUMMARY OF ENVIRONMENTAL EFFECTS

The summary of environmental effects outlines the conclusions made in the ESTM from the combined and individual affects resulting from AAU's changes in use at the existing sites.

[9] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, Case No. 2008.0586E, February 25, 2015.

1.5.1. Land Use and Plans and Policies

The changes in use of the AAU existing sites were generally consistent with land use plans and policies. AAU's postsecondary educational institutional uses are primarily located in mixed-use and commercial areas of the City, whereas student housing (group housing for a postsecondary educational institution) is situated in mixed-use and residential neighborhoods. However, AAU has failed to comply with applicable land use policies, regulations, and ordinances at the existing sites by not obtaining required building permits, CU authorizations, and/or legislative amendments. Eight sites are not in compliance with the Planning Code and require a legislative amendment. The legislative amendment could be inconsistent with General Plan policies relating to displacement affordable housing or residential hotel uses and such policies to avoid conversion of such affordable housing uses. The AAU existing sites are required to comply with all aspects of the Planning Code, and the building permits, legislative amendments, and CU authorizations associated with this document, along with determinations by the Planning Commission, in order to avoid or reduce any inconsistencies that have resulted in land use effects from the changes in use. Therefore, land use effects from the changes in use would not be substantial.

1.5.2. Population and Housing

Population and employment growth from the changes in use were insubstantial and were accounted for in growth forecasted for San Francisco by the Association of Bay Area Governments (ABAG). However, due to the limited housing supply, housing demand created by AAU's on-site enrollment and faculty/staff growth has had a substantial effect on the City's housing supply. AAU's conversion of residential buildings has created further housing displacement and negatively affected housing supply. AAU's existing site uses have displaced substantial numbers of people and existing housing units that may have necessitated the construction of replacement housing elsewhere. Therefore, the changes in use have had a substantial adverse effect on housing.

1.5.3. Aesthetics

Localized changes in neighborhood aesthetics have occurred with the addition of AAU signage and exterior improvements at the AAU existing sites. Signage located on historic resources has been reviewed as part of this document to determine compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and applicable San Francisco Planning Code requirements. Where signage does not conform to these standards, modifications or removal has been suggested as recommended Conditions of Approval. No substantial aesthetic effect has occurred from the changes in use.

1.5.4. Cultural and Paleontology

None of the alterations to the existing sites that have occurred during AAU's occupancy have resulted in losses of historic integrity that would disqualify a property from listing on the California Register of Historic Resources or in Articles 10 or 11 of the Planning Code. Where alterations do not meet the Secretary of the Interior Standards, Conditions of Approval have been recommended. The changes in use have had no substantial effect on historic architectural resources.

Because no ground-disturbing activities have occurred at the AAU existing sites, no effects on archaeological and paleontological resources have occurred as a result of the changes in use.

1.5.5. Transportation and Circulation

AAU's changes in use at the existing sites have created a low level of additional traffic with a wide geographic distribution of vehicle trips, and have not substantially altered traffic conditions. Transit trips generated by all existing AAU uses are generally accommodated on existing transit service without substantially affecting capacity utilization and service except in Muni's Fulton/Hayes Corridor, part of the Northwest Screenline, where AAU's contribution to transit use results in an increase from 82 percent capacity utilization to 85 percent, reaching Muni's performance standard and resulting in a substantial effect on transit. Parking demand from the existing sites has not resulted in a parking shortfall throughout the east side of the City; however, some clusters of sites do create an overlapping parking demand. AAU's changes in use have not had a substantial effect on transportation and circulation. Many of the existing AAU sites provide bicycle parking; however, a few do not provide enough and those that do generally do not meet the location and configuration requirements in the Planning Code or the Planning Department's guidance for bicycle parking. Conditions of Approval that have been recommended at various existing sites include:

- providing required bicycle parking or sufficient bicycle parking to meet demand, and designing, locating, and configuring bicycle parking as required by the Planning Code;
- continuing to monitor and improve AAU shuttle service pursuant to the AAU Shuttle Policy, and shortening or removing underused shuttle stop zones; and,
- monitoring and improving highly-used pedestrian areas.

A recommended Condition of Approval applicable to all existing AAU sites is to implement Transportation Demand Management strategies to reduce single-occupant vehicle trips and related parking demand, encourage use of alternate transportation modes, and implement a Transportation Management Plan.

1.5.6. Noise

Past tenant improvement construction activities at the AAU existing sites would have been of a short duration and were required to comply with the noise limits and hours mandated by the City's Noise Ordinance. Therefore, construction has not resulted in a substantial noise effect in the neighborhoods where AAU existing buildings are located.

Noise generated by AAU shuttle buses and traffic is generally masked by the surrounding traffic noise and does not cause a substantial increase in ambient noise levels. Noise levels generated by student activity, fixed noise sources, and increased shuttle bus operations are compatible with a typical urban environment, and do not contribute to noise levels in excess of limits established by the Noise Ordinance. Therefore, the changes in use at the existing sites have not had a substantial effect on the noise environment.

1.5.7. Air Quality

AAU's tenant improvements and renovations have not resulted in emissions that would have exceeded the Bay Area Air Quality Management District's (BAAQMD's) thresholds of significance and no substantial effect is expected to have occurred. However, operation of AAU sites has increased criteria air pollutant and precursor emissions, including reactive organic gases (ROG), nitrogen oxides (NOx), and fine particulate matter (PM). In 2010, all emissions were calculated to have been below BAAQMD thresholds, except ROG and NOx emissions, which exceeded BAAQMD daily and annual thresholds. In 2016, AAU meets the BAAQD daily and annual thresholds for ROG, while NOx emissions continue to exceed the annual threshold, and meet the daily threshold. Operational emissions are forecasted to steadily decrease over time to below the thresholds. Therefore, no substantial effect on air quality has occurred from AAU operations and changes in use at the AAU existing sites.

1.5.8. Greenhouse Gas Emissions

The AAU existing sites were either determined to be consistent with San Francisco's Greenhouse Gas (GHG) Compliance Checklist, would require compliance during the building permit review process, or a recommended Condition of Approval is suggested. With the implementation of the recommended Conditions of Approval and conformity with the City's GHG Compliance Checklist, the AAU existing sites' GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and no substantial contribution to GHG emissions would occur.

1.5.9. Wind and Shadow

The AAU existing sites have not been substantially altered in form or massing and therefore have not resulted in new shadows on public open space or new hazardous wind conditions in pedestrian use areas. Therefore, the changes in use from AAU occupation of these sites has not resulted in substantial wind or shadow effects.

1.5.10. Recreation

Population growth associated with the AAU existing sites has resulted in an incremental increase in demand for City parks, open space, and recreational facilities. However, given the proximity of each existing site to recreational resources, the availability of private AAU recreation opportunities (at ES-16, 1069 Pine Street; ES-20, 620 Sutter Street; and ES-31, 601 Brannan Street), and City park revitalization efforts, the increase in demand due to AAU's occupation of the existing sites has not resulted in substantial degradation of such facilities or necessitated the construction of new or expanded facilities. No substantial effect on recreation has occurred from the changes in use at the AAU existing sites.

1.5.11. Utilities and Service Systems

AAU changes in use may have caused increased demand for water, wastewater, and solid waste disposal at the existing sites. However, the San Francisco Public Utilities Commission (SFPUC) has sufficient capacity to meet Citywide demand for water supplies and wastewater collection and treatment. Similarly, Recology has adequate capacity at its landfill to meet San Francisco's demand for solid waste disposal. No substantial effect on Citywide systems has occurred from the changes in use.

1.5.12. Public Services

The changes in use have resulted in the increased demand for fire protection, police protection, school services, and other public services. The San Francisco Fire Department (SFFD), San Francisco Police Department (SFPD), San Francisco Unified School District (SFUSD), and other City agencies that provide public services to the residents of the City have accounted and planned for growth, including growth in institutional and residential uses in the City. As a result, increased demand from AAU's changes in use has not resulted in any service gap in Citywide police, fire, emergency medical services, libraries, or schools. Therefore, the AAU changes in use have not created a substantial effect on public services.

1.5.13. Biological Resources

Tenant improvements such as interior construction, security system installation, fire sprinkler/fire alarm upgrades, seismic retrofit work, and installation of exterior signage and lighting at the existing sites are types of activities that would not be expected to result in any impacts on biological resources that may have been or may be present in the vicinity of each AAU site. Therefore, the existing AAU sites have not resulted in substantial adverse effects on important biological resources.

1.5.14. Geology and Soils

The changes in use at AAU's existing sites have not resulted in substantial ground-disturbing activities, building demolition, or building additions. Therefore, the changes in use and minor modifications at the AAU existing sites have not resulted in adverse effects on geology or soils.

All of AAU's existing sites were required to undergo seismic retrofits and have been upgraded in accordance with the San Francisco Building Code including the Unreinforced Masonry Building (UMB) Ordinance and Soft-Story Retrofit Ordinance. Although buildings could remain vulnerable during an earthquake, the building alterations and changes in use have not had a negative effect on the building's performance under a seismic event.

1.5.15. Hydrology and Water Quality

Wastewater and stormwater associated with the changes in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system, and were treated to regulatory standards. Therefore, the changes in use have not had a substantial adverse effect on water quality.

Most improvements were limited to the interior or minor exterior modifications to buildings, and the amount of impervious surface has remained the same. No effect on the quality or rate of flow has resulted from the changes in use. Impacts due to flooding from tsunami or sea level rise are site-specific and have not caused a negative effect on the safety of members of the campus community or City. No substantial effect on hydrology or water quality has occurred from the changes in use.

1.5.16. Hazards and Hazardous Materials

AAU uses, stores, and disposes of their hazardous materials and wastes in accordance with local, state, and federal laws and regulations, as overseen by the U.S. Environmental Protection Agency and the San Francisco Department of Public Health. Because AAU complies with the regulatory regime, no effect related to the use of hazardous materials has occurred.

Based on the age of the existing sites and the determinations made by the completed Phase I Environmental Site Assessments (ESAs), the presence of hazardous building materials in all of the properties is probable. Because building alterations were completed at all of the existing sites, there was the potential for asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), or other hazardous building materials to have been disturbed and exposed during the renovations. It cannot be determined if an effect on human health or the environment occurred as a result of the changes in use, because the scale of alterations and the presence of hazardous materials are not exactly known and some alterations were completed without the appropriate permits. Future alterations would need to comply with San Francisco Health Code Article 22A, the Maher Ordinance, and other state and local regulations.

1.5.17. Minerals and Energy Resources

Based on lack of known mineral resources or designated locally important mineral resource recovery sites within the City, no effects have occurred as a result of the change in use of the existing AAU sites.

The tenant improvements associated with the changes in use have not required large amounts of fuel, energy, and water. Compliance with the City's GHG Compliance Checklist as part of the building permit review process would avoid water and energy waste. In addition, AAU's improved shuttle service associated with the use of the existing AAU sites may have reduced the use of private cars from the sites, diminishing the amount of fuel that would have likely otherwise been consumed. The effect on mineral and energy resources from the changes in use was insubstantial.

1.5.18. Agriculture and Forest Resources

The AAU existing sites are located within fully developed, existing neighborhoods in urbanized areas of San Francisco. Based on the lack of agricultural and forest resources at the AAU existing sites, no substantial effect on agriculture or forest resources has occurred from the changes in use.

This page intentionally left blank.

2. DISCRETIONARY ACTIONS

Actions by the Planning Commission to review and approve conditional use (CU) authorizations under Planning Code Sections 303 and 304 are discretionary actions, as are actions by the Historic Preservation Commission to approve Certificates of Appropriateness (COAs) and Permits to Alter (PTAs) (Planning Code Sections 1006 and 1110). In addition, the Planning Commission has the discretion to review any building permit application pursuant to Planning Code Sections 311(d) and 312(e).

Legislative amendments are a type of discretionary action first considered by the Planning Commission and, if recommended, then by the Board of Supervisors. Legislative amendments are necessary for a General Plan amendment, Zoning Map amendment, and a Planning Code text amendment.

A CU authorization is a discretionary action approving a type of land use that is not principally permitted in a particular Zoning District. Under Section 301 of the San Francisco Planning Code, CUs require a Planning Commission hearing to determine if the proposed use is necessary or desirable for, and compatible with, the neighborhood or the community; whether it may have a negative impact on the surrounding neighborhood; whether it complies with the *San Francisco General Plan;* and whether it is consistent with the purpose of the applicable use district. During the public hearing, the Planning Commission could "condition" the use by applying operational conditions that address neighborhood concerns, as well as applying conditions that may otherwise be required by the Planning Department pursuant to the Planning Code.

A building permit is required in the City and County of San Francisco for any construction unless it is specifically exempted by the San Francisco Building Code. Building permits are also required to document changes in use at a building where the proposed use is principally permitted, but differs from the previous use. At several of AAU's existing sites, building permits are required to legalize changes in use to postsecondary educational institution[10] or student housing[11] at these locations (as opposed to CU authorizations) because the proposed uses are principally permitted within their respective Zoning District.

A PTA is the entitlement required to alter a Significant or Contributory building or any building within a Conservation District designated in Article 11 of the Planning Code. A PTA is required for any construction, addition, major alteration, relocation, removal, or demolition of a structure, object, or feature. A COA is required for any exterior alteration requiring a permit or other types of alterations that are visible from a public street or other public places to City Landmarks and Historic Districts designated under Article 10 of the Planning Code.

---

[10] A postsecondary educational institution use is defined in the Planning Code as an institutional use, public or private, that is certified by the Western Association of Schools and Colleges, and provides educational services such as a college or university, and has met the applicable provision of Section 304.5 of the Planning Code concerning Institutional Master Plans.

[11] Student housing is defined in the Planning Code as a living space for students of accredited postsecondary educational institutions that may take the form of dwelling units, group housing, or single-room occupancy units and is owned, operated, or otherwise controlled by an accredited postsecondary educational institution.

AAU is required to obtain legislative amendments, CU authorizations, and building permits for eight sites; CU authorizations and building permits for nine sites; and building permits (only) for six sites. In addition to the above requirements, AAU is required to undergo Article 10 and Article 11 review for ten sites, five of which need no other approvals and five of which also need building permits to legalize changes in use. Table 1, Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities, pp. 1-5 to 1-6, and Table 2, Summary of Uses and Required Discretionary Actions for AAU's Existing Residential Facilities, pp. 1-7 to 1-8, describe the legalization approvals needed for the existing sites. The sites in each category are also identified below. The lists below do not include the six sites for which no review or approvals are required (i.e., ES-7, 1900 Jackson Street; ES-15, 736 Jones Street; ES-18, 740 Taylor Street; ES-24, 560 Powell Street; ES-29, 575 Harrison Street; and ES-32, 168 Bluxome Street).

2.1. SITES REQUIRING DISCRETIONARY REVIEW AND APPROVAL

2.1.1. Sites Requiring Legislative Amendments

Planning Code Section 317(f)(1) prohibits the conversion of residential units to student housing. Planning Code Section 846.32 does not permit educational services in the SALI Zoning District. As such, legislative action would be required to amend the Planning Code text in order to approve some of AAU's changes in use. All of the existing sites that require a legislative amendment would also require a building permit and CU authorization. The following existing sites require a legislative amendment, building permit, and CU authorization:

- ES-4: 2211 Van Ness Avenue
- ES-5: 2209 Van Ness Avenue
- ES-9: 1916 Octavia Street
- ES-11: 1153 Bush Street
- ES-12: 1080 Bush Street
- ES-13: 860 Sutter Street
- ES-17: 1055 Pine Street
- ES-31: 601 Brannan Street

2.1.2. Sites Requiring Conditional Use Authorizations

CU authorizations are sought to legalize student housing (group housing for a postsecondary educational institution), as well as to legalize existing institutional uses. The AAU facilities that require CU authorizations are generally located in the Downtown/Civic Center, North Beach/Fisherman's Wharf, Nob Hill, and South of Market (SoMa) neighborhoods, as well as the Van Ness corridor. The existing sites that require CU authorizations also require building permits to document the change in use.

The following existing sites require a CU authorization and building permit (in addition to those listed in Section 2.1.1 above):

- ES-2: 2295 Taylor Street
- ES-3: 1727 Lombard Street
- ES-6: 2151 Van Ness Avenue
- ES-8: 1849 Van Ness Avenue
- ES-10: 950 Van Ness Avenue
- ES-14: 817–831 Sutter Street
- ES-16: 1069 Pine Street
- ES-33: 460 Townsend Street
- ES-34: 466 Townsend Street

2.1.3. Sites Requiring Building Permit Applications Only

Building permits are required to legalize changes in use to postsecondary educational institution or student housing (group housing for a postsecondary educational institution). The existing sites that only require a building permit are principally permitted in their respective Zoning Districts. The AAU facilities for which building permits are required are primarily concentrated in the Downtown/Civic Center, North Beach/Fisherman's Wharf, and SoMa neighborhoods. The existing sites that require building permits are as follows (the five identified with an asterisk also require historic resource evaluation, as noted below in Section 2.1.4):

- ES-1: 2340 Stockton Street
- ES-20: 620 Sutter Street*
- ES-23: 491 Post Street*
- ES-27: 77 New Montgomery Street*
- ES-28: 180 New Montgomery Street*
- ES-30: 58–60 Federal Street*

2.1.4. Sites Requiring Historic Resource Evaluations

Alterations to Significant or Contributory buildings, City Landmarks, and buildings within Conservation and Historic Districts require a historic resource evaluation. The following existing AAU properties are evaluated for effects to historic resources and require an Article 10 or 11 approval, in the form of a COA or PTA (in addition to those listed in Section 2.1.3 above):

- ES-19: 680 Sutter Street
- ES-20: 620 Sutter Street
- ES-21: 655 Sutter Street
- ES-22: 625–629 Sutter Street
- ES-23: 491 Post Street
- ES-25: 540 Powell Street
- ES-26: 410 Bush Street

- ES-27: 77 New Montgomery Street
- ES-28: 180 New Montgomery Street
- ES-30: 58–60 Federal Street

As with other existing AAU sites, physical alterations to these buildings have been made as part of minor tenant improvements. Exterior improvements have included, but are not limited to, paint, the relocation or addition of light fixtures, and the addition of signage and awnings. The effect of such improvements on the integrity of these buildings as historic resources is discussed for each of these ten sites in Section 4.2, Individual Site Assessments, below, as well as for 11 other existing sites (950 Van Ness Avenue [ES-10] and 601 Brannan Street [ES-31] are not considered historic architectural resources) that are evaluated for all resource areas. Of these ten buildings, five do not require discretionary review by the Planning Commission and therefore will be reviewed only by the Historic Preservation Commission for COAs or PTAs in relation to their historic architectural resources. These five are: ES-19, 680-688 Sutter Street; ES-21, 655 Sutter Street; ES-22, 625-629 Sutter Street; ES-25, 540 Powell Street; and ES-26, 410 Bush Street. The other five sites require building permits.

3. COMBINED AND CUMULATIVE ANALYSIS

3.1. APPROACH TO COMBINED AND CUMULATIVE ANALYSIS

The in-combination analysis presented in this chapter considers the combined effects of all 34 of AAU's existing sites by individual environmental resource topic. Generally, the AAU existing sites are located in the eastern portion of San Francisco (east of Octavia Street/Boulevard), and therefore combined effects are considered for this geographic area of the City for most of the environmental topics. In cases where several existing sites are clustered together or located in the same neighborhood, the analysis notes their potential combined effects. Impacts caused by increased population, discussed in the topics of Population and Housing, Public Services, Recreation, and Utilities and Service Systems, are analyzed in a Citywide context and based upon the total AAU population of faculty and staff and on-site students.

The combined analysis does not evaluate future or planned AAU growth, because a program- and project-level combined analysis was completed in the *Academy of Art University Project Draft EIR*, reflecting AAU future growth and individual changes in use, respectively.[1] Community concerns expressed in response to the Notice of Preparation (NOP) and Draft EIR are summarized in Section 3.2, Community Concerns, below.

The cumulative analysis considers the cumulative effects of the 34 existing AAU sites in combination with past, present, and reasonably foreseeable development projects in the City. No specific cumulative project list was prepared; therefore, new development projects near the AAU existing sites were selected based on the Planning Department's *Development Pipeline Report*.[2] Because some topics were not considered to have a substantial effect on the environment as a result of AAU's changes in use (e.g., wind and shadow effects would not change as a result of AAU's occupancy or changes in use), their cumulative effect is not discussed in this chapter; however, every topic is discussed under the individual site assessments in Chapter 4.

3.2. COMMUNITY CONCERNS

The public has had an opportunity to comment on AAU's existing sites through several different venues, including the 30-day public review period for the NOP and the 60-day public review period for the Draft EIR, and the Planning Commission hearing on the AAU *Institutional Master Plan*, held on November 17, 2011. In these forums, written and oral comments were received and recorded. Community concerns were raised regarding the compatibility of AAU's expansion of postsecondary educational institutional uses within existing communities. Community support for AAU and the benefits to existing communities were also raised. Community concerns regarding the expansion of AAU facilities relate primarily to the following:

---

1 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, Case No. 2008.0586E, February 25, 2015.

2 San Francisco Planning Department, The Pipeline Report, Updated February 18, 2016. Available online at http://www.sf-planning.org/?page=1691. Accessed on February 19, 2016.

1. Unmet housing demand, associated either with new AAU students or the residents they could displace;
2. Neighborhood nuisance assumed to be associated with increases in AAU's student population, such as increases in graffiti, loitering, and smoking in front of businesses, excess noise and litter, and obstructed pedestrian access;
3. Hazards and pollution associated with the continuation and expansion of AAU's shuttle service, such as excessive travel speeds, double-parking, obstructing line-of-sight for other drivers, and noise and air pollution from shuttle operation; and
4. Patterns of development associated with AAU facilities, such as the suggestion from some community members that AAU facilities should be more centralized, and from others that too many student housing units are concentrated in too small an area.

The most recent opportunity for comment was the 60-day public review period for the *Academy of Art University Project Draft EIR*, published on February 25, 2015. Written comments were received throughout the review period, and oral comments were recorded at the Planning Commission's public hearing on April 16, 2015. Community concerns raised during the Draft EIR review period pertinent to the existing sites include the following:

1. Planning Code violations associated with AAU occupancy of the existing sites, changes in use, and tenant improvements made without required permits from the Planning Department;
2. Housing impacts including the displacement of residents and effects on housing supply (particularly low-income housing) associated with AAU uses; and AAU's connection to Citywide housing issues (housing shortage, lack of affordable housing, loss of rental housing, and gentrification/displacement);
3. Potential discrepancies in the description of the AAU project site and study area characteristics, particularly regarding prior and current uses on AAU existing sites;
4. Compatibility of the AAU existing sites with the surrounding neighborhood;
5. Population and housing as they relate to the existing sites and the Jobs-Housing Linkage, and displacement of businesses;
6. Traffic effects resulting from operation of the shuttle service between the existing sites;
7. Existing traffic conditions surrounding the existing sites and traffic effects associated with AAU occupancy;
8. Effects resulting from a dispersed campus of existing buildings, including transit, air quality, and GHG emissions;
9. Noise sources associated with AAU's occupancy of existing sites, and noise effects on biological resources;
10. Recreation effects due to the increased density resulting from the change of use and occupancy of existing buildings in high-needs areas; and

11. Use of existing non-AAU recreational facilities for AAU athletic programs and effects on availability of sports courts for San Francisco youth and neighborhood users, and lack of on-site recreation facilities

In response to the Draft EIR, the Planning Department received comments related to the future publication of this Existing Sites Technical Memo (ESTM). In general, these comments noted community concerns that the Draft EIR did not disclose adequate information about code compliance or approvals that AAU failed to complete or obtain before occupying the existing sites, along with the environmental effects of such changes in use. As discussed in Section 1.3, Purpose of the Existing Sites Technical Memorandum, in Chapter 1, this ESTM presents an analysis, separate from the Proposed Project discussed in the Draft EIR, of the environmental effects that have resulted from the changes in use and associated tenant improvements undertaken by AAU without the required conditional use (CU) authorizations, building permits, and compliance with the San Francisco Planning Code. This ESTM recommends Conditions of Approval to lessen any identified environmental effects at 28 of AAU's existing properties (the 23 CU and/or building permit sites plus the five historic-resource-only Article 10 and 11 sites). In addition, this ESTM discusses properties containing uses that are not permitted by the Planning Code, and the legislative amendments that would be required to allow the conversion to AAU's current unpermitted uses. This ESTM also evaluates the AAU shuttle system serving all 34 existing sites. This ESTM will be used by the Planning Department, Planning Commission, Historic Preservation Commission, Board of Supervisors, and the public in consideration of CU authorizations, building permits, Conditions of Approval, legislative amendments, and historic resource compliance.

Comments also discussed potential discrepancies in the Draft EIR's characterization of the existing sites, such as the descriptions of prior uses and AAU's current use activities. Figure 1, Existing AAU Campus Sites, p. 1-4, shows the location of these existing sites (this figure also appears in the Draft EIR). Table 1, Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities, pp. 1-5 to 1-6, and Table 2, Summary of Uses and Required Discretionary Actions for AAU's Existing Residential Facilities, pp. 1-7 to 1-8, list each building and note the square footage occupied by AAU, the year the building was occupied by AAU, its permitted use prior to AAU occupation, AAU's current use, the change in use, the zoning district, the building capacity, and the approvals required in order to legalize AAU's current uses of these properties. In addition, each individual site assessment in Chapter 4 provides further background on each property's prior occupancy, AAU occupancy, tenant improvements and renovations, and required project approvals.

Most of the comments received by the City on the Draft EIR that are pertinent to the existing sites raised issues about AAU's Planning Code violations and housing impacts. The topics of these comments, as they relate to the 34 existing sites and their changes in use, are discussed in this ESTM in the Land Use and Plans and Policies and Population and Housing sections of each individual site assessment in Chapter 4 (see Section 4.2, Individual Site Assessments) as well as in this chapter. Effects on other environmental topics related to the existing sites—including Transportation and Circulation, Noise, Air Quality and Greenhouse Gas Emissions, and Recreation—are addressed in their respective topical sections in Section 4.2, Individual Site Assessments, and this chapter. Other environmental topics for which effects would be the same or similar for each of the 23 existing sites requiring a building permit, a CU authorization, or both, such as Biological Resources, are briefly discussed in the individual site assessments in Chapter 4.

3.3. INTRODUCTION TO ENVIRONMENTAL ANALYSIS

This analysis considers the environmental effects associated with previous unauthorized changes of use of the AAU existing sites for which applications are pending. The changes of use require approval of CU authorizations, building permits, Permits to Alter (PTAs), Certificates of Appropriateness (COAs), and/or legislative amendments for 28 of the existing AAU sites; and review of the effects specific to historical resources for 21 existing AAU sites. Of the 28 existing sites requiring legislative amendments, CU authorization, PTAs, COAs, and/or building permits, five do not involve use changes, and therefore only need to be evaluated for the physical changes made to the sites for historical resources impacts. Thus, 23 of the existing sites require one or more discretionary approvals other than, or in addition to, evaluations of changes made to historical resources.

Table 3, Type of Analysis by Environmental Topic, identifies the topics analyzed and how the 23 existing sites where there are changes of use are considered for each topic. For topics listed as “Site-specific,” the topic is analyzed in a site-specific evaluation of each of those 23 existing sites, in Chapter 4, Environmental Analysis of Individual Sites. The individual site assessments in Section 4.2, Individual Site Assessments, will be used by the Planning Department staff and provided to decision-makers as part of their Case Reports for all subsequent approvals. For topics listed as “Similar” or “Same,” the issue is discussed briefly in the same way for each site, because there would be no site-specific impacts for any of the 23 existing sites, and the impacts would be the same or similar at each site. The combined and cumulative effects of all 34 of the existing sites are discussed under each of the 19 environmental topics listed in Table 3, below.

Construction activities occurred at the existing sites after AAU occupied the buildings. There is limited information available about the effects of these construction activities. Therefore, assumptions were made about likely types of construction based on the alterations known to have occurred. These assumptions are summarized below in Section 3.3.1, before the combined and cumulative analyses of the AAU existing sites by environmental topic in Section 3.4.

3.3.1. Construction Assumptions

Site visits were made to 28 of AAU’s existing sites to obtain information about the types of construction that were carried out at these buildings.[3] On the basis of these observations, it appeared that physical changes to the sites primarily consisted of tenant improvements and life safety upgrades, such as paint, installation of drywall for partitions, relocation or addition of light

[3] Site visits to the 28 AAU existing sites were performed by SWCA/Turnstone Consulting from Monday, September 28, to Friday, October 1, 2015. Secondary site visits to observe the interiors of certain buildings were performed from Tuesday, November 3, to Thursday, November 5, 2015. A third round of site visits by SWCA/Turnstone Consulting and the Planning Department to observe the exteriors and interiors of the 28 existing sites was performed from Wednesday, December 16, to Friday, December 18, 2015.

Table 3. Type of Analysis by Environmental Topic

Topic	Type of Discussion
Land Use	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Population and Housing	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Aesthetics	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Historic Architectural Resources	Site-specific evaluations for each of 26 sites and combined for 34 existing sites
Archaeological and Paleontological Resources	Same for all sites and combined for 34 existing sites
Transportation and Circulation (including AAU Shuttle System)	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Noise	Site-specific evaluations for each of 23 sites and combined for 23 existing sites
Air Quality	Site-specific evaluations for each of 23 sites and combined for 23 existing sites
Greenhouse Gas Emissions	Site-specific evaluations for each of 23 sites and combined for 23 existing sites
Wind and Shadow	Same for all sites and combined for 34 existing sites
Recreation	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Utilities and Service Systems	Similar for all 23 sites and combined for 34 existing sites
Public Services	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Biological Resources	Similar for all sites and combined for 34 existing sites
Geology and Soils	Site-specific evaluations for each of 23 sites and combined for 34 existing sites
Hydrology and Water Quality	Similar for all sites and combined for 34 existing sites
Hazards and Hazardous Materials	Site-specific evaluations for each of 23 sites and combined for 23 existing sites
Mineral and Energy Resources	Same for all sites and combined for 34 existing sites
Agricultural and Forest Resources	Same for all sites and combined for 34 existing sites

fixtures, new fire sprinkler systems, new fire alarms or upgrades, limited interior seismic retrofit work, elevator modernizations, and installation of exterior signage and awnings. The equipment typically used for such improvements (at the sites that did not require seismic retrofitting) included scaffolding, ladders, or scissor lifts, and, in some cases, other equipment for specialized trades, such as pipe cutters, pipe threaders, and hand cutters for fire sprinkler work. Construction vehicles included light trucks and delivery vehicles from vendors; however, no motorized excavation equipment was used.

For buildings that required seismic retrofitting, limited interior structural improvements were added to ensure the safety and security of the building's occupants and the property itself. This process typically included strengthening of concrete tilt-up reinforced masonry, un-reinforced masonry, and concrete buildings more than two stories in height. Some common examples of seismic retrofitting elements are adding new lateral load-resisting elements such as concrete shear walls or structural steel-braced frames; strengthening roof and floor diaphragms (including connections to supporting walls); and installing lateral load-resisting systems. For seismic retrofit projects, AAU used pneumatic equipment[4] (inside the building) and 10-cubic-yard roll-off bins. No subsurface excavation was required for any of the sites except at 2151 Van Ness Avenue (ES-6), St. Brigid Church, where two footings were installed, requiring approximately 3 feet of excavation for each new footing. The exterior construction activity at this site likely included equipment temporarily shoring the location where footings were installed, minor excavation with off-haul of about 18 to 30 cubic feet of soil, and installation of the concrete footings.

Typical AAU construction activities did not normally require vehicles to detour; however, detours, where required, lasted for one to three days when material was delivered or a scaffold was being erected. Most construction required the use of 3-cubic-yard trash bins. Approximately 10 percent of AAU construction projects required the pedestrian right-of-way to be closed for up to one week, depending on the nature of deliveries and construction activities.

The duration of construction activities varied with the occupied building and lasted from one to three months during winter and/or summer breaks. Most activities took place in the interior of buildings.

3.4. ENVIRONMENTAL RESOURCE TOPICS

3.4.1. Land Use and Plans and Policies

Plans and Policies

This discussion describes any inconsistencies between the AAU existing sites and applicable plans and policies, including objectives and policies of the *San Francisco General Plan* (*General Plan*) and other applicable local and regional plans. For specific discussions of consistency with applicable plans and policies of the AAU existing sites, see Chapter 4, Environmental Analysis of Individual Sites. Where inconsistencies are identified that could result in physical effects on the environment, the reader is directed to the analysis of those effects in Chapter 4. Any conflicts with

[4] Pneumatic equipment is a machine or device operated by compressed air or by a vacuum.

applicable plans and policies would not, in and of themselves, constitute significant environmental impacts.

Plans and policies that are applicable to AAU's changes in use at the existing sites include relevant objectives and policies in the *General Plan*, and policies and objectives in Area Plans for areas in which existing AAU sites are located: the *Van Ness Avenue Area Plan*, *Downtown Area Plan*, *Western SoMa Area Plan, and Eastern SoMa Area Plan.* The two AAU buildings on New Montgomery Street (ES-27 and ES-28) are in the *Transit Center District Area Plan* as well as in the area being studied for the proposed *Central SoMa Area Plan*.

Decision-makers will consider the consistency of the AAU occupancy and use of existing sites with applicable plans and policies that do not directly relate to physical environmental issues when they determine whether to approve or disapprove the existing site approvals.

San Francisco General Plan

The *General Plan*, adopted by the Planning Commission and the Board of Supervisors, is both a strategic and long-term document, broad in scope and specific in nature. The *General Plan* is the embodiment of the City's collective vision for the future of San Francisco, and is comprised of a series of elements, each of which deals with a particular topic that applies Citywide. The *General Plan* contains the following elements: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing, Recreation and Open Space, Transportation, and Urban Design. The *General Plan* does not include a separate Land Use Element; rather, land use policies are dispersed throughout the other elements of the *General Plan*, as well as in its various area plans, and these are summarized in a Land Use Index indicating where all of the City's land use policies reside. The area plans identify specific localized goals and objectives for a neighborhood or district, which cover their respective geographic areas of the City. The final determination of consistency with the *General Plan* rests with the Planning Commission and the Board of Supervisors.

The compatibility of the AAU existing sites with *General Plan* policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision of whether to approve or disapprove the discretionary approvals. Any potential conflict identified as part of the process would not alter the physical environmental effects from the changes in use. This section discusses objectives and policies from these *General Plan* elements and area plans that may be inconsistent with the changes of use. Those objectives and policies relate to AAU's plans to change the use of existing buildings for educational, student residential, or recreational purposes, and to maintain the AAU shuttle system serving its sites. Many other *General Plan* goals, policies, and objectives generally apply only to new development under review by the City; therefore, the discussion below focuses on policies that apply to AAU's occupancy and change in the use of existing buildings.

This discussion is not intended to provide a comprehensive analysis of *General Plan* consistency. The *General Plan* contains many policies that may address different goals. The Planning Commission, in considering whether to approve the discretionary approvals, will determine whether the actions, on balance, are consistent with the applicable objectives and policies of the

General Plan. Staff report(s) for Planning Commission action(s) on the project will contain a complete analysis of *General Plan* consistency.

Air Quality Element

The Air Quality Element of the *General Plan* supports the goal of clean air through air quality regulations and policies encouraging the location of land uses adjacent to transit services. The overall goal is to give high priority to air quality improvement in San Francisco to protect the City's population from adverse health effects and other effects of air pollutants. The element's objectives and policies cite federal, state, and regional air quality regulations and plans, as guidance for evaluation of projects in San Francisco. Air Quality Element objectives and policies relevant to the project include:

Objective 1 Decrease the air quality impacts of development by coordination of land use and transportation decisions

Policy 3.1 Take advantage of the high density development in San Francisco to improve the transit infrastructure and also encourage high density and compact development where an extensive transportation infrastructure exists.

Policy 3.5 Continue existing growth management policies in the city and give consideration to the overall air quality impacts of new development including its impact on the local and regional transportation system in the permit review process. Ensure that growth will not outpace improvements to transit or the circulation system.

The Air Quality Element also extensively cites objectives and policies in other *General Plan* Elements, including the Transportation Element, the Commerce and Industry Element, and the Environmental Protection Element, calling for mixed-use development that can be served by transit and reduce automobile travel and related emissions.

AAU existing sites are served by several modes of transportation, including public transportation and AAU's shuttle service. Further, the AAU existing sites maintain the mixed-use character of development in the study areas. These features limit automobile trips and associated air polluting emissions. In general, the AAU existing sites as a whole are not be anticipated to impede the implementation of the Air Quality Element of the *General Plan*. No potential conflicts of the AAU existing sites with the Air Quality Element have been identified. Refer to Section 3.4.8, Air Quality, for a discussion of the combined effects on air quality.

Housing Element

The 2009 Housing Element, as adopted by the Planning Commission in March 2011 and by the Board of Supervisors on June 21, 2011, contains objectives and policies "intended to address the State's objectives and the City's most pressing housing issues: identifying adequate housing sites, conserving and improving existing housing, providing equal housing opportunities, facilitating permanently affordable housing, removing government constraints to the construction and rehabilitation of housing, maintaining the unique and diverse character of San Francisco's neighborhoods, balancing housing construction with community infrastructure, and sustainability."

Housing Element Policy 3.5 found that "residential hotels located in predominantly residential areas should be protected by zoning that does not permit commercial or tourist use; in nonresidential areas, conversion of units to other uses should not be permitted or should be permitted only where a residential unit will be, or has been, replaced with a comparable unit elsewhere. For those hotels that are operated as mixed tourist/permanent resident hotels, strict enforcement is needed to ensure that the availability of the hotel for permanent residential occupancy is not diminished. City programs should support the retention of residential hotels, restrict conversions and demolitions, and require mitigations to any impacts on the affordable housing stock."

Adoption of the Housing Element did not modify land use, specify areas for increased height or density, suggest specific controls for individual neighborhoods, implement changes to the Zoning Map or Planning Code, or direct funding for housing development.

The following policies relate to housing supply, especially the supply or displacement of affordable housing.[5] Housing Element objectives and policies relevant to the project include:

Objective 1	Identify and make available for development adequate sites to meet the City's housing needs, especially permanently affordable housing.
Policy 1.9	Require new commercial developments and higher educational institutions to meet the housing demand they generate, particularly the need for affordable housing for lower income workers and students.
Objective 3	Protect the affordability of the existing housing stock, especially rental units.
Policy 3.1	Preserve rental units, especially rent controlled units, to meet the City's affordable housing needs.
Policy 3.5	Retain permanently affordable residential hotels and single room occupancy (SRO) units.

The AAU existing sites have resulted in the displacement of residential hotel uses at existing sites (158 group-housing rooms); therefore, the conversion of these uses is not consistent with policies to avoid conversion of such affordable housing. In addition, if AAU did not meet housing demand generated by its growth, the changes of use are not consistent with policies to require provision of such housing. The AAU existing sites have created a substantial demand for housing, and Section 3.4.2, Population and Housing, discusses these project effects further.

Transportation Element

The Transportation Element describes components of the San Francisco and regional transportation system. The plan sections include (1) General, (2) Regional Transportation, (3) Congestion Management, (4) Vehicle Circulation, (5) Transit (6) Pedestrians, (7) Bicycles, (8) Citywide Parking and (9) Goods Movement. Each section consists of objectives and policies regarding a particular segment of the master transportation system and related maps which describe key

5 *San Francisco General Plan*, 2009 Housing Element (adopted by the Planning Commission, March 24 2011, and effective July 29, 2011).

physical aspects.[6] The Transportation Element goals, policies, and objectives provide detailed guidance on all forms of transportation in San Francisco, but emphasize plans and measures to reduce the number of private automobile trips and to bring about an overall reduction in automobile dependency through education, assistance, and incentives.

Transportation Element objectives and policies relevant to the project include:

Objective 1	Meet the needs of all residents and visitors for safe, convenient and inexpensive travel within San Francisco and between the City and other parts of the region while maintaining the high quality living environment of the Bay Area.
Policy 1.6	Ensure choices among modes of travel and accommodate each mode when and where it is most appropriate.
Objective 20	Give first priority to improving transit service throughout the City, providing a convenient and efficient system as a preferable alternative to automobile use.
Policy 20.6	Provide priority enforcement of parking and traffic regulations on all Transit Streets, particularly Transit Preferential Streets.

Transportation Element objectives and policies relate to AAU's plans to change uses of existing buildings for institutional uses including educational, student residential, or recreational purposes, and to maintain the AAU shuttle system serving its sites. AAU operates a private shuttle service to transport students, faculty, and staff among their existing locations. The shuttle system consists of fixed bus routes and on-demand shuttles serving primarily, though not exclusively, the cluster of AAU facilities in the Downtown/Civic Center area.

Generally, AAU growth is located in areas well served by transit. AAU maintains its shuttle service to accommodate existing and future activities. AAU's shuttle service works to discourage auto use by students, faculty, and staff, and thus is not inconsistent with Transportation Element policies that encourage non-private-automobile travel. No potential conflicts with the Transportation Element have been identified.

Urban Design Element

The Urban Design Element addresses San Francisco's physical character and environment with respect to development and preservation.[7] The element primarily addresses objectives and policies relating to review of new development, or substantial alterations to existing buildings. Urban design policies require projects to take into account the surrounding urban context through building design and placement. Policies strive to integrate proposed buildings with existing buildings by designing building height and bulk that respects adjacent buildings, establishing and protecting visual relationships and transitions, and respecting older or historical structures.

---

6 *San Francisco General Plan*, Transportation Element (adopted by Planning Commission Resolution No. 16942, 2005, as amended through 2010).

7 *San Francisco General Plan*, Urban Design Element (adopted by Planning Commission Resolution No. 12040, 1990, as amended through 2005.

Urban Design Element objectives and policies relevant to the project include:

Objective 2 Conservation of resources which provide a sense of nature, continuity with the past, and freedom from overcrowding.

Policy 2.4 Preserve notable landmarks and areas of historic, architectural or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.

Policy 2.5 Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.

If alterations to a building exterior or new signage resulted in substantial adverse change to the original character of older buildings, the AAU existing sites would not be consistent with Urban Design Element objectives and policies. Section 3.4.3, Aesthetics, discusses effects in relation to urban design character, and Section 3.4.4, Cultural and Paleontological Resources, discusses the effects on historical resources. No potential conflicts with the Urban Design Element have been identified.

Consistency with the applicable Area Plans and Planning Code is described for each site in the individual site assessments in Section 4.2, Individual Site Assessments.

Land Use

AAU has used existing buildings and has not constructed new buildings or demolished existing structures. Overall, the uses are consistent with current development patterns and the range of existing uses in their respective neighborhoods, all of which are within a dense urban context. Therefore, the changes in use at the AAU existing sites for postsecondary educational institution and student housing (group housing for a postsecondary educational institution) purposes have not physically divided established communities.

Some neighborhoods (e.g., Lower Nob Hill) that have a concentration of AAU uses may experience intensified AAU student, faculty, and staff populations and associated activities that could be observed as a change in character. The neighborhoods with concentrations of existing AAU buildings are located in areas that have a wide range of residential, commercial, and institutional uses. Some members of the public expressed a concern that the presence of large numbers of AAU students could result in nuisances such as littering, noise, graffiti, bus/car idling, and other similar occurrences. Although of community concern, such issues are commonly addressed through enforcement of local regulations and ordinances related to noise and disturbance. No substantial combined land use effect has occurred, because nearby land uses have remained compatible and the changes have been incremental and dispersed. AAU has failed to comply with applicable land use policies, regulations, and ordinances at the existing sites by not obtaining required building permits, CU authorizations, and/or legislative amendments. AAU has filed applications for CU authorizations and building permits to bring its existing sites into compliance. AAU has also applied for legislative amendments for all sites not compliant with the Planning Code. However, in combination, the changes in use are consistent with land use plans and policies identified in the *San Francisco General Plan* and Planning Code for the City and County of San Francisco. Postsecondary educational institutional uses are primarily located in mixed-use and commercial areas of the City, whereas student housing (group housing for a postsecondary educational institution) is situated in mixed-use and residential neighborhoods. The AAU existing sites are required to comply with all aspects of the Planning Code, and the building permits, legislative amendments, and CU authorizations associated with this document, along with Conditions of Approval adopted by the Planning Commission, in order to avoid or reduce any inconsistencies that have resulted in in-combination land use effects from the changes in use.

Any cumulative development in neighborhoods where existing AAU sites are located would be subject to policies, regulations, and ordinances, including requirements in the *San Francisco General Plan* and the Planning Code, and would therefore result in a substantial land use effect. It is not likely that clusters of existing AAU buildings would attract other major institutional uses to a neighborhood. No cumulative Citywide effects are expected to result from the 34 existing AAU sites because their presence has not resulted in a predominance of institutional uses in any neighborhood.

3.4.2. Population and Housing

Population and Employment

The 2010 Census indicated that 805,000 people lived in San Francisco; by 2014, 829,072 people resided in the City, an increase of 24,072, or 3 percent.[8] According to the Association of Bay Area Governments (ABAG) *Projections 2013*, San Francisco is expected to reach a population of approximately 890,400 by 2020, an increase of 85,400 residents, or 9.4 percent, since 2010.[9]

In 2016, AAU had an on-site enrollment of 8,649, including undergraduate and graduate students.[10] Student enrollment has fallen since 2010, when AAU had an on-site enrollment of 11,182. This is likely due to the effects of the dampened economy.[11]

In 2010, approximately 69 percent of AAU enrolled students moved to San Francisco from locations outside of the City to attend the University.[12] These AAU students would have been new residents in the City. Some of the changes in use of AAU buildings may have made it easier for students to move to the City.

AAU faculty are responsible for teaching and administering the curriculum, whereas staff are responsible for the administration and day-to-day functioning of the university. The faculty has decreased from 1,294 in 2010 to 1,031 in 2016. The staff has decreased slightly from 997 in 2010 to 923 in 2016.[13] Therefore, total employment for the University is approximately 1,954 people. According to AAU, approximately 43 percent of AAU's faculty and staff were residents of San

8 U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates. Available online at http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed on April 12, 2016.

9 Association of Bay Area Governments, *Plan Bay Area Projections 2013*, p. 20.

10 Academy of Art University, *2015 Update to Academy of Art University's Institutional Master Plan*, November 17, 2015.

11 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.4-7.

12 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.4-17. This is conservative because it includes students whose prior and/or current place of residence was not reported 4.4-17.

13 Academy of Art University, *2015 Update to Academy of Art University's Institutional Master Plan*, November 17, 2015.

Francisco as of 2013. Assuming this same percentage, approximately 841 AAU faculty and staff were presumed to reside in the City in 2016 prior to working at AAU.

The combination of all 34 AAU existing sites totals 1,033,093 square feet of institutional use and 485,703 square feet of residential use with a combined capacity of 8,683 persons (7,865 students and 818 faculty/staff) and 1,810 beds, respectively. The total capacity of the institutional buildings is not an aggregate population, because students and faculty may use multiple buildings throughout the day.

As noted above, ABAG *Projections 2013* anticipates a population in San Francisco of 890,400 by 2020, an increase of 85,400 from the 2010 census population.[14] As described in the Draft EIR, conservatively presuming that AAU's current enrollment and employment is a population increase, and that 69 percent of new students and 43 percent of new employees have moved and become new residents of the City, the changes in use would have resulted in 6,809 new San Francisco residents in 2016. In addition to these new student and employee residents, it is assumed that employees would have an average household size of 2.27 people, and that an additional 1,067 household members would be new residents of San Francisco (see Table 4, San Francisco Population Growth and Housing Demand from AAU Enrollment.) Under this assumed scenario, the new resident population represents less than 1 percent of San Francisco's total population and approximately 5.4 percent of ABAG-projected population growth through 2020.[15] Although the changes in use may have resulted in population growth, the net addition is not substantial. Therefore, any growth associated with the changes in use at the AAU existing sites has been within projected growth estimated in ABAG *Projections 2013* and has not resulted in a substantial increase in Citywide population. In addition, population growth at all of the AAU existing sites has taken place within ABAG's Priority Development Areas (PDAs), identified in *Plan Bay Area* as suitable for population and employment growth.[16]

Some localized effects on population could occur within neighborhoods. Where AAU student housing and/or postsecondary educational institutional uses are located near each other, the neighborhood population of students and faculty and staff could appear greater than before AAU occupied multiple buildings in the area. However, because many buildings were previously occupied prior to AAU use, the neighborhood increase in population was minor. The previous building occupancy is typically unknown.

Employment growth associated with new development projects and changing demographic characteristics in the City have been forecasted by ABAG. The Citywide employment growth is expected to increase by approximately 53,810 jobs between 2015 and 2040, respectively.[17] Any new population and employment growth associated with AAU's changes in use, in combination with new development projects, is not beyond what was projected by ABAG and planned for by

---

[14] Association of Bay Area Governments, *Plan Bay Area Projections 2013*, p. 20.
[15] 4,617 new residents divided by 890,400 residents, results in 0.005 percent. 4,617 new residents divided by 85,400 residents (2010-2020 San Francisco population growth), results in 5.4 percent.
[16] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.
[17] ABAG, *Projections 2013*, p. 75. ABAG's projected residential population for San Francisco is 847,000 persons in 2015 and 1,085,700 persons in 2040.

the City. Therefore, no cumulative effects from employment growth associated with new development and the AAU changes in use would occur, because they have been anticipated in the Citywide context.

Table 4. San Francisco Population Growth and Housing Demand from AAU Enrollment for 2010 and 2016

	2016 AAU Enrollment	2010 AAU Enrollment	Population Not Moving to San Francisco[1]	New San Francisco Residents	Demand for Housing	New Dwelling Units Demand in San Francisco
Students	8,649	11,182	31% 2,681 (2016) 3,467 (2010)	69% 5,968 (2016) 7,716 (2010)	2016: 4,158 new resident students (excludes 1,810 beds provided by AAU) 2010: 5,931 new resident students (excludes 1,785 beds)[3]	1,832 dwelling units[4] (2016) 2,613 dwelling units[5] (2010)
Faculty and Staff	1,954	2,291	57% 1,114 (2016) 1,306 (2010)	43% 841 (2016) 986 (2010)	841 households (2016) 986 households (2010)	841 households (2016) 986 households (2010)
Household Members	--	--	--	1,067[2] (2010) 1,253[2] (2016)	--	--
Total	***10,603***	***13,473***	***3,795 (2016)*** ***4,773 (2010)***	***7,876 (2016)*** ***9,955 (2010)***		***2,673 (2016)*** ***3,599 (2010)***

Notes*:*

1 The population who has not moved to San Francisco includes students, faculty, and staff who already live in San Francisco, as well as those who live in nearby jurisdictions who commute to San Francisco.

2 Household members are those who live in the household of a faculty or staff member, who moved along with the rest of their households to San Francisco. This calculation assumes an average household size of 2.27 people, which is derived from ABAG's *Projections 2013*. AAU indicates that students are generally not married and do not have children, and therefore are not projected to bring household members with them to San Francisco.

3 1,785 beds is the total number of beds that AAU documented in the Draft EIR that were being used in 2010.

4 4,158 residents in a unit of 2.27 average household size = 1,832 dwelling units. Assumes that student household size is similar to the average San Francisco household size.

5 5,931 residents in a unit of 2.27 average household size = 2,613 dwelling units. Assumes that student household size is similar to the average San Francisco household size.

Sources: San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, Table 4.4-9, p. 4.4-18; Academy of Art University, *2015 Update to Academy of Art University's Institutional Master Plan*, November 17, 2015; SWCA/Turnstone Consulting.

Displacement of people (employees) could have occurred at the existing institutional sites if AAU occupied a non-vacant building whose employees were not able to relocate within the City or the region. Previous uses that AAU could have displaced include offices, religious institutions, retail, and industrial. While AAU has occupied previously used buildings, any displaced employees would have likely found jobs in other locations within the City or region, because ABAG predicts employment will grow by 102,510 jobs between 2015 and 2020.[18] Therefore, no substantial effect on employee displacement has occurred as a result of the changes in use. For a site-specific discussion of employment displacement, refer to Section 4.2, Individual Site Assessments.

Housing

According to the 2014 American Community Survey (ACS), San Francisco has approximately 380,518 housing units.[19] Of these, approximately 31,686 housing units are vacant,[20] resulting in an approximately 8.3 percent total vacancy rate. However, the 2014 ACS estimates that the total vacancy rate is actually much lower, with a homeowner vacancy rate of approximately 0.9 percent and a rental vacancy rate of approximately 3.0 percent.[21] The San Francisco Bay Area remains one of the nation's most expensive housing markets.[22] The 2010 and 2016 data for AAU population and housing is provided because 2010 is the baseline to which on-going operational impacts are compared, and it is the baseline year for the Draft EIR. This provides a conservative approach to any effects associated with AAU's population and housing.

Of the 5,968 new San Francisco student residents as a result of the existing sites changes in use, 4,158 would require housing in the City (1,810 students are able to reside in AAU-provided housing). This is a decrease from 2010 when 7,716 new San Francisco residents from the changes in use required 5,931 dwelling units (1,785 students were able to reside in AAU-provided housing). Approximately 32 percent of students live outside the City in the Easy Bay, South Bay/Peninsula, and North Bay. AAU's residential "rooms" generally contain two beds, "apartments" contain three to four beds, and "units" contain four beds. Student housing buildings range from 192 to 525 square feet per resident, with an overall average of 280 square feet per resident.[23]

Student and Faculty/Staff Housing Induced Impacts

As discussed above on p. 3-14, AAU's changes in use have resulted in new residents to San Francisco, adding to the demand for housing. If new students do not reside in AAU housing, they would likely live with roommates; very few would be expected to live alone because of the high cost of housing. Applying the Citywide average of 2.27 persons per household to 4,158 new student residents associated with AAU's total enrollment results in a demand for 1,832 dwelling

---

[18] ABAG, *Projections 2013*, p. 75. ABAG's projected employment for San Francisco is 617,420 persons in 2015 and 671,230 persons in 2040.

[19] U.S. Census Bureau, 2010-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed on April 12, 2016.

[20] U.S. Census Bureau, 2010-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed on April 12, 2016.

[21] U.S. Census Bureau, 2010-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed on April 12, 2016.

[22] San Francisco Planning Department, *2014 San Francisco Housing Inventory*, April 2015, p. 34. Available online at http://www.sf-planning.org/ftp/files/publications_reports/2014_Housing_Inventory.pdf. Accessed November 4, 2015.

[23] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.4-8.

units (households) for students (excluding students housed by AAU).[24] In 2010, AAU student housing demand was approximately 2,613 residential units (refer to Table 4, above). The 2010 and 2016 data is provided because 2010 is the baseline to which on-going operational impacts are compared, and it is the baseline year for the Draft EIR. This provides a conservative approach to any effects.

The total student housing demand from on-site AAU enrollment represents less than one percent of the total number of housing units in the City.[25] However, given the low residential vacancy rate in San Francisco, a demand for nearly 1,800 to 2,600 units could have a substantial effect on the housing supply.

Applying the Citywide household average size of 2.27 persons to the existing 1,114 AAU employees who were expected to become San Francisco residents, a total of 841 dwelling units (i.e., households) would have been required to satisfy demand, representing a small amount of the total number of housing units in the City.[26] In 2010, 1,306 AAU employees would have become new residents of San Francisco and 986 dwelling units would have been needed to satisfy demand. Housing demand for faculty and staff is likely conservative because it assumes all faculty and staff who move to the City would relocate with a household of approximately 2.27 persons. AAU data states that 43 percent of employees live in San Francisco and are assumed to not relocate and would stay within their existing housing. The total housing unit demand for students and faculty and staff was 3,599 households in 2010 and 2,673 households in 2016.

<u>Displacement</u>

Some of AAU's housing uses are comprised of converted hotels, motels, or other non-residential buildings (e.g., ES-3, ES-14, and ES-20), while others were group-housing units or apartments. AAU's total student housing of 1,810 beds consists of 143 dwelling units, 94 live/work units, 270 former tourist hotel and motel rooms, and 544 former group-housing units. Of these, two dwelling units and 160 group-housing units would require a legislative amendment to permit their use as student housing. Residential units (i.e., dwellings, group housing) that have been converted to student housing by AAU represent an incremental intensification of housing demand, because most residents in these converted buildings moved to housing elsewhere (some still live in AAU buildings). In addition, the dwelling units are no longer be part of the larger Citywide housing supply. The 1,810 beds (total number of beds at the AAU existing sites) located in the 143 dwelling units, 94 live/work units, 270 former tourist hotel and motel rooms, and 544 former group-housing units represent less than one percent of the total number of housing units in the City.[27, 28]

---

[24] The number of new student residents (4,670) divided by the Citywide average persons per household (2.27) results in 2,058 units.

[25] 2,058 units divided by 380,518 units, results in 0.5 percent.

[26] The number of AAU faculty/staff (1,954) multiplied by City resident rate of AAU faculty/staff (43 percent) results in 841 new San Francisco residents.

[27] U.S. Census, Profile of General Population and Housing Characteristics, 2010. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed on February 3, 2016.

[28] 1,810 beds divided by 380,518 units results in 0.4 percent. This equation equates one bed to one dwelling unit, which is conservative since it is likely that several students would share a dwelling unit, resulting in a smaller percentage of the total number of San Francisco housing units.

Other AAU residential buildings were formerly tourist hotels and motels or other non-residential uses, and the change of use to student housing did not result in the loss of a residential unit. Therefore, these changes did not displace substantial numbers of people. AAU's conversion of two dwelling units and 160 group-housing units (not including former hotel and motel rooms), regardless of whether they were previously occupied, has contributed to an incremental amount of displacement of substantial numbers of people. AAU's existing site uses have displaced substantial numbers of people and existing housing units that may have necessitated the construction of replacement housing elsewhere. AAU has contributed to the displacement of people, reduction in the housing supply, and an increase in housing demand. Displacement has primarily occurred in the Pacific Heights and Lower Nob Hill neighborhoods, and along the Van Ness Corridor.

The number of lost residential units—approximately 143 dwelling and 544 group-housing units—is considerably smaller than the demand (2,673 in 2016 and 3,599 in 2010) for residential units from the students housed by AAU. The housing demand from AAU students if they were not in AAU-supplied housing would likely be higher because of the high density of student housing (280 square feet per resident) compared to the density of a typical residential unit.

Planning Code Section 317 (f)(1) prohibits the conversion of existing residential uses to student housing. All residential units that were converted to student housing will require a legislative amendment to Planning Code Section 317(f)(1). Units that are not in compliance with the Student Housing Ordinance would be required to be vacated unless the requested Amendments to the Planning Code are approved by the Board of Supervisors.

Combined and Cumulative Housing and Displacement Discussion

As described above and shown in Table 4, AAU's total enrollment of 8,649 in 2016 and 11,182 in 2010 has added 5,968 new student residents to the City in 2016 and 5,931 in 2010. These new residents need housing in San Francisco. In 2016, AAU provided approximately 1,810 beds, which accommodates on average approximately 15 percent of AAU's total enrollment, leaving 4,158 new student residents who require housing in the City. In addition, 841 faculty and staff have had to find housing in the City. The dwelling unit demand as a result of AAU's total on-site student enrollment and employment is conservatively estimated to be 2,673 units. In 2010, AAU's total enrollment and employment would have required approximately 3,599 dwelling units. Total housing demand from enrollment and employees at AAU is less than one percent of the total number of units in the City.[29] However, given the low residential vacancy rate in San Francisco, a demand for nearly 2,700 units (3,599 dwelling units in 2010), this could have substantial effects on the housing supply. The demand for 2,673 units represents 8.4 percent of the available vacant units identified by the ACS.[30] Applying the 2014 ACS rental vacancy rate of 3 percent of the entire housing stock (380,518 units), meeting AAU's housing demand would require 23.4 percent of the available units.[31]

[29] 2,673 units divided by 380,518 units results in 0.7 percent.
[30] AAU housing demand (2,673 residents) – 2,673 divided by the number of vacant units (31,686 units) results in 8.4 percent.
[31] AAU housing demand (2,673 residents) – 2,673 divided by the number of vacant units (11,415 units) results in 23.4 percent.

Due to the limited number of available units, the combined effects of AAU's enrollment and employees creates a substantial demand for housing. Additionally, AAU's student housing demand requires housing designed to accommodate students, requiring higher affordability and high density units.

Many new development projects in the City are residential. According to the City's *2014 Housing Element*, San Francisco is projected to experience continued housing growth between 2010 and 2040, with an annual average of approximately 3,400 new San Francisco households.[32] Although the average is below the 4,124 net new residential housing units identified as the annual demand necessary for regional housing needs in the *Regional Housing Needs Plan for the San Francisco Bay Area*: *2014–2022*, the new units represent an incremental increase in supply. Correspondingly, AAU's conversion of non-residential buildings such as hotels to student housing has alleviated some pressure from Citywide housing demand, whereas the residential conversions and institutionally induced population and employment growth have increased demand.

ABAG *Projections 2013* anticipated housing growth in the City at 17,160 additional households by 2020. The need for an additional 2,899 housing units as a result of AAU's housing demand would represent approximately 16.9 percent of the anticipated household growth by 2020.

Given the substantial effect on housing demand the changes in use at the existing sites generated, when combined with cumulative housing demand in the City, even accounting for new housing development projects, the AAU student and population growth has had a substantial cumulative effect on housing demand in San Francisco.

3.4.3. Aesthetics

The AAU existing sites are located in urban environments and within existing buildings that have not undergone major additions or development. Exterior alterations have been limited to signage, awnings, window replacement, re-roofing, painting, and other similar types of improvements. The 34 existing AAU sites are dispersed throughout the eastern half of the City and therefore do not combine to cause adverse aesthetic effects on a Citywide basis. The combined effect of AAU existing sites has not changed views or scenic vistas. All lighted signage and exterior lighting are located and consistent with lighted, urban areas and do not combine to substantially increase ambient lighting.

Localized changes in neighborhood aesthetics have occurred with the addition of AAU signage, such as neighborhoods where multiple AAU existing sites may contain several AAU signs and awnings on a single block or several nearby blocks (e.g., the 600 block of Sutter Street). Nevertheless, aesthetic change associated with signage is subject to the signage provisions in the Planning Code. A number of signs that have been found to be out of compliance with applicable Planning Code requirements have been removed pursuant to Notices of Violation from the Planning Department. Moreover, many of the AAU existing sites are located within streetscapes that have advertising located on pole banners, signs, and awnings. Therefore, some AAU signage is

[32] San Francisco Planning Department, 2014 Housing Element, Part I: Data and Needs Analysis, p. I.7, April 2015. Available online at http://www.sf-planning.org/ftp/general_plan/2014HousingElement-AllParts_ADOPTED_web.pdf. Accessed on February 10, 2016.

generally consistent with the visual character of the dense, urban neighborhoods where the AAU existing sites are located. No combined aesthetic effect has occurred from the changes in use.

Cumulative effects from other development projects would be subject to the same requirements of the City's Planning Code, Planning Commission Resolution 912 (i.e., lighting and glare), and the Secretary of the Interior's Standards for the Treatment of Historic Properties as appropriate. Compliance with these requirements by new development projects, in combination with the existing AAU sites, would result in insubstantial effects on visual resources.

3.4.4. Cultural and Paleontological Resources

Historic Architectural Resources

No significant cumulative effects on historic architectural resources would be expected to result from AAU's occupation of the existing sites and changes to them. Taken as a whole, AAU properties are located in some of the City's most well-established and historic neighborhoods. Among them are downtown San Francisco (including a number of properties within the Article 11-designated Kearny-Mason-Market-Sutter Conservation District), Lower Nob Hill (including the expansive, National Register-listed Lower Nob Hill Apartment Historic District), South of Market district, and the Van Ness Avenue and Lombard Street corridors. None of the alterations to the sites that have occurred during AAU's occupancy have resulted in losses of historic integrity that would disqualify a property from listing on the California Register of Historic Resources or in Articles 10 or 11 of the Planning Code. Finally, historic resources have been reviewed for compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and applicable San Francisco Planning Code requirements; where alterations do not conform to these standards, modifications or removal have been indicated as recommended Conditions of Approval, which are presented in Section 4.2, Individual Site Assessments, in Chapter 4. As such, the alterations, both individually and cumulatively, have caused no substantial effect on historic architectural resources.

Considered in combination with other reasonably foreseeable projects anticipated throughout the eastern portion of the City, the alterations to historical resources carried out by AAU would not be expected to result in a cumulative impact, given that the projects did not have a substantial effect on historical resources. Effects on historic architectural resources at individual sites are discussed in Section 4.2, Individual Site Assessments, in Chapter 4.

Archaeological and Paleontological Resources

Because no ground-disturbing activities occurred at the AAU existing sites, no combined effects on archaeological and paleontological resources have occurred as a result of the changes in use.

3.4.5. Transportation and Circulation

The methodology and assumptions used to analyze individual sites as well as the combined effects of the existing sites on traffic, transit, and parking are presented here.

Existing Travel Demand Estimation

"Travel demand" refers to the new vehicles, transit, pedestrian, and other traffic generated by a specific land use or a number of land uses within a specific location. There are no standard institutional trip generation rates in the *2002 Transportation Impact Analysis Guidelines for Environmental Review* published by the San Francisco Planning Department (*SF Guidelines*). Similarly, the college campus trip generation rates in the *Institute of Transportation Engineers (ITE) Trip Generation Manual* were not seen as appropriate for the AAU residential and institutional facilities. Therefore, to present an accurate analysis of trips generated by AAU uses, the following AAU-specific data sources were used to estimate travel demand for the uses at each AAU site:

- **Existing trip generation survey.** Security cameras were used to document the number of persons entering and exiting at seven academic and seven residential buildings operated by AAU.
- **On-line travel behavior survey.** In fall 2010, an on-line travel behavior survey was administered to students, faculty, and staff members to ascertain their residence locations and mode of transportation to and from the AAU sites.
- **Residential zip code.** In fall 2010, a database of residential locations by zip code for faculty, staff, and commuter students was developed.

The travel behavior survey results were used to develop modal split rates. Trip distribution data for faculty, staff, and students were derived from the residential zip code data. The person trip and vehicle trip analysis was conducted in accordance with the methodology of the *SF Guidelines*, using the project-specific trip generation rates, mode splits, and distribution. The number of person trips generated by the uses at each AAU site was estimated for the weekday evening (PM) peak hour. The resulting person trips were then assigned to different modes of travel, and the geographic distribution of the project-related trips was estimated.

Person Trips Estimates

Person trip generation and distribution rates were categorized and developed for four specific uses at each AAU site: 1) residential, 2) academic/administrative, 3) academic with auditorium space, and 4) vehicle storage. The methodology to develop person trip generation rates for each use is described below:

- **Residential Person Trip Generation and Distribution:** The person-trip generation data for residential uses were collected for the 2010 fall semester using the AAU Security Department's video cameras focused on the entrances to residential halls. The data were collected by counting the number of persons entering and exiting as recorded on security videos at seven residential halls during the PM peak period (4:00 p.m. to 6:00 p.m.) on a typical weekday (Tuesday, Wednesday, or Thursday) in September and October 2010. The seven residential halls surveyed include both large and small buildings and those designated for both graduate and undergraduate students. Person-trip generation rates were calculated for each site, and an arithmetic average was calculated to generate the trip generation rates for residential buildings. Inbound and outbound modal split data were also derived. Based on these findings, the PM peak hour trip rate is 0.65 person trips per residential student, or 1.17 person trips per room using the average occupancy of 1.8 students per room.[33] In order to assess potential changes in trip generation since the baseline year 2010, CHS conducted trip generation surveys at two residential sites (1727 Lombard Street and 620 Sutter Street) on Tuesday, March 15, 2016. Survey findings indicate that the trip generation rate observed in 2016 is slightly lower than the rate observed in 2010 (1.17 trips per room in 2010 compared to 1.16 trips per room in 2016).

- **Academic/Administrative Person Trip Generation and Distribution:** The person-trip generation data for academic/administrative uses were similarly collected for the 2010 fall semester using video cameras focused on the entrances to academic/administrative buildings. The data were collected by counting the number of persons entering and exiting as recorded on security videos at seven academic/administrative buildings during the PM peak period (4:00 p.m. to 6:00 p.m.) on a typical weekday (Tuesday, Wednesday, or Thursday) in September and October 2010. The academic/administrative buildings surveyed include combinations of classroom or studio space, office space for administrative and support functions, and other amenities such as snack bars and student lounges. In order to assess potential changes in trip generation since the baseline year 2010, CHS conducted trip generation surveys at five academic/administrative sites (466 Townsend Street, 491 Post Street, 2340 Stockton Street, 180 New Montgomery Street, and 77 New Montgomery Street) on Tuesday, March 15, 2016. Survey findings indicate that the trip generation rate observed in 2016 is approximately 56 percent lower than the average reported for the base year 2010 (4.6 trips per 1,000 square feet in 2010 compared to 2.0 trips per 1,000 square feet in 2016).
- **Academic with Auditorium Person Trip Generation and Distribution:** The person-trip generation for two AAU sites with auditorium space (2151 Van Ness Avenue and 491 Post Street) was estimated based on the number of students and faculty/staff present on site on a given day during the peak use.[34] Each student and faculty/staff member was assumed to generate a total of two trips during the PM peak period (4:00 p.m. to 6:00 p.m.).
- **Vehicle Storage Space Person Trip Generation and Distribution:** The person-trip generation for a vehicle storage site at 950 Van Ness Avenue was estimated based on the number of employees on site. There are a total of seven full-time and two part-time staff (e.g., mechanics and car detailers). Each employee was assumed to generate one outbound trip during the PM peak hour. Their mode split and trip distribution was based on the data provided in the *SF Guidelines*.

Person-trip generation rates were calculated for each building, and an arithmetic average was calculated to generate the trip generation rates for an academic/administrative building. When a building contains a use that is accessory to a primary use, only the primary land use was considered for the purpose of trip generation analyses. For example, when a food service/café is provided on the ground floor of a residential building (e.g., 1849 Van Ness Avenue and 1055 Pine Street), it was not considered as a separate land use for trip generation purposes. Inbound and outbound split data were also derived from actual counts of persons entering and exiting AAU's residential or academic/administrative buildings in fall 2010, using AAU's security camera video tapes. Table 5,

[33] The average residential density of existing AAU residential units is 1.8 students per room. This rate was used to estimate the number of students in each residential unit.

[34] Peak use consists of the highest enrollment for a given class scheduled on Tuesdays in spring 2016.

AAU PM Peak Hour Trip Generation Rates, summarizes the PM peak hour trip generation rates for AAU residential and academic/administrative uses.

Table 5. AAU PM Peak Hour Trip Generation Rates

Land Use	Daily Person-Trip Rate[1]	PM Peak Hour Person-Trip Rate[1]
Residential[2]	3.76 trips/student or 6.77 trips/room	0.65 trips/student or 1.17 trips/room
Academic/Administrative Building	53.65 trips/1,000 sf	4.56 trips/1,000 sf
Academic with Auditorium Building	23.4 trips/student and faculty/staff	2 trips/student and faculty/staff
Vehicle Storage	4 trips/employee	1 trip/employee

Notes:

1 Trip generation rates were derived from actual counts of persons entering/exiting AAU residential and academic/administrative buildings conducted by Atkins in 2010, using AAU's security camera video tapes.

2 A residential room occupancy factor of 1.8 was used to convert students to rooms.

Source: Atkins, 2013

In order to assess potential changes in trip generation since the baseline year 2010, CHS conducted trip generation surveys at seven sample AAU sites on Tuesday, March 15, 2016.[35] Appendix TR-L includes a technical memorandum summarizing the methodologies and findings of the AAU ESTM trip generation and travel behavior surveys. Survey findings indicate that while the trip generation rate for residential buildings is similar to the rate observed in 2010 (1.17 trips per room in 2010 vs.1.16 trips per room in 2016), the trip generation rate for institutional buildings is approximately 56 percent lower than the average reported for the base year 2010 (4.6 trips per 1,000 square feet vs. 2.0 trips per 1,000 square feet). This reduction in trip generation is generally attributed to reduced student enrollment (by approximately 26 percent, from 11,182 students in 2010 to 8,649 students in 2016) and consolidation of classroom and department locations.[36] Based on these results, the trip generation estimates using the 2010 survey results provide a more conservative estimate of trip generation and subsequent analyses. Table 6, Estimated PM Peak Hour Person Trip Generation at AAU Sites, presents the uses for each of the 23 sites, the estimated number of faculty, staff, and students, and the estimated PM peak hour person trips for each site.

35 Surveyed sites include 1727 Lombard Street, 620 Sutter Street, 466 Townsend Street, 491 Post Street, 2340 Stockton Street, 180 New Montgomery Street, and 77 New Montgomery Street.

36 Examples of the consolidation of classrooms include the following: the Sculpture program moved to 2801 Leavenworth Street from 410 Bush Street; the Advertising program moved to 410 Bush Street from 60 Federal Street; Interior Architecture and Design moved to 601 Brannan Street from 2300 Stockton Street; Fine Art classes have been consolidated at 60 Federal Street; Motion Pictures & Television consolidated at 466 Townsend Street (these were formerly divided between Townsend and 180 New Montgomery Street); and the Fashion program has been consolidated at 625 Polk Street (these were formerly divided between 180 New Montgomery Street and 2300 Stockton Street).

Table 6. Estimated PM Peak Hour Person Trip Generation at AAU Sites

Existing Site No.	AAU Site	Site Use	PM Peak Hour Person Trip Generation				
			Faculty	Staff	Commuter Student	Residential Student	Total
1	2340 Stockton Street	Institutional (44,530 sf)	14	40	128	22	**204**
2	2295 Taylor Street	Institutional (20,000 sf[1])	6	18	57	10	**91**
3	1727 Lombard Street	Residential (52 rooms)				61	**61**
4	2211 Van Ness Avenue	Residential (11 rooms)				15	**15**
5	2209 Van Ness Avenue	Residential (22 rooms[2])				21	**21**
6	2151 Van Ness Avenue	Auditorium, classrooms (27,912 sf)	1	3	34	6	**44**
8	1849 Van Ness Avenue	Institutional (107,908 sf)	35	98	305	54	**492**
9	1916 Octavia Boulevard	Residential (22 rooms)				26	**26**
10	950 Van Ness Avenue	Classic vehicle museum, storage[3] (50,700 sf)	--	9	--	--	**9**
11	1153 Bush Street	Residential (15 rooms)				18	**18**
12	1080 Bush Street	Residential (57 rooms)				67	**67**
13	860 Sutter Street	Residential (89 rooms)				103	**103**
14	817-831 Sutter Street	Residential (114 rooms)				133	**133**
16	1069 Pine Street	Recreation (1,875 sf)	1	2	4	1	**8**
17	1055 Pine Street	Residential and cafeteria (81 rooms)				95	**95**
20	620 Sutter Street	Residential (65 rooms)				76	**76**
23	491 Post Street	Auditorium and Institutional uses (37,730 sf)	5	15	211	37	**268**
27	77 New Montgomery Street	As analyzed, in 2010, main administrative building with classrooms (147,509 sf)	47	134	418	74	**673**

Existing Site No.	AAU Site	Site Use	PM Peak Hour Person Trip Generation				
			Faculty	Staff	Commuter Student	Residential Student	Total
28	180 New Montgomery Street	Institutional (190,066 sf)	61	173	536	96	**866**
30	58-60 Federal Street	Institutional (91,522 sf)	32	90	283	50	**455**
31	601 Brannan Street	Institutional (73,666 sf)	24	67	208	37	**336**
33	460 Townsend Street	Institutional (25,920 sf)	8	25	73	13	**119**
34	466 Townsend Street	Institutional (113,436 sf)	36	103	322	57	**518**
Total Institutional Use Evaluated		*860,287 sf*	270	777	2,579	457	**4,083**
Total Residential Rooms Evaluated		*525 rooms*	--	--	--	615	**615**
		Grand Total	***270***	***777***	***2,579***	***1,072***	***4,698***

Notes:
[1] The trip generation calculations for ES-2 were based on the 2010 occupancy of 20,000 sf. AAU currently occupies 10,440 sf in 2016; therefore, the transportation analysis results for this site are conservatively high.
[2] ES-5 at 2209 Van Ness Avenue was analyzed at 18 rooms, whereas the site contains 22 rooms. The transportation analysis results remain reasonably conservative for this site with the small difference of 4 additional rooms.
[3] The 950 Van Ness Avenue site is a storage facility for the classic vehicle museum at Van Ness Avenue and Washington Street. The 950 Van Ness Avenue building does not generate person trips on a typical day nor during the weekday PM peak hour.

Source: CHS Consulting Group, 2015.

Mode Split Estimates

Person trips generated by each AAU existing site were calculated based on the types of uses contained in the buildings. The mode of travel (automobile, transit, shuttle, bicycle, and walk) was then established. The modal split rates were disaggregated for the following three groups: 1) faculty/staff, 2) commuter students, and 3) resident students. The rates were further disaggregated for AAU sites located within approximately ½ mile from Market Street (i.e., Near Market Street Corridor) and for AAU sites located farther away from Market Street (i.e., Outside of Market Street Corridor). The purpose of this second-level disaggregation is to present the differences in automobile and transit usage between buildings closer to Market Street, which has abundant regional and local transit services within a reasonable walking distance, versus those sites that are farther away from Market Street, which could result in more automobile drivers. The PM peak hour modal split rates for both Near Market buildings and buildings further away from Market Street are presented in Table 7, AAU PM Peak Hour Modal Split Rates. It shows faculty, staff, and commuter students working or attending classes in sites outside of the Market Street corridor have a higher propensity to drive alone, with smaller percentages taking shuttle buses or walking. For faculty/staff and students, PM peak hour commute patterns were derived from surveys of PM peak hour commute patterns.

Table 7. AAU PM Peak Hour Modal Split Rates

Type	Drive Alone	Carpool	Transit	Shuttle	Bike	Walk	Total
Near Market Street Corridor							
Faculty/Staff	10%	6%	57%	0%	9%	18%	100%
Commuter Students	10%	0%	44%	16%	1%	28%	100%
Resident Students	0%	0%	5%	57%	4%	34%	100%
Outside Market Street Corridor							
Faculty/Staff	20%	4%	57%	1%	2%	16%	100%
Commuter Students	14%	6%	56%	11%	3%	10%	100%
Resident Students	0%	0%	5%	57%	4%	34%	100%

Source: Atkins, 2010; CHS Consulting Group, 2016.

In order to assess potential changes in travel behaviors by AAU students, faculty, and staff members since the base year 2010, CHS conducted travel behavior surveys at seven sample AAU sites on Wednesday, March 15, 2016 (see Appendix TR-L).[37] Survey findings indicate that there is a reduction of drive-alone trips and transit trips while the use of shuttle and other Transportation Network Services such as Uber and Lyft has increased since 2010. It also shows that faculty, staff, and commuter students working or attending classes in sites outside of the Market Street corridor have a higher propensity to drive alone or take shuttles, with smaller percentages taking transit or walking. Based on these results, it was determined that the trip generation estimates using the 2010 survey results provide a more conservative estimate of vehicle trip generation and subsequent traffic analyses.

The methodology further applies two different inbound and outbound ratios for faculty and staff. Faculty travel pattern survey results were closer in inbound and outbound ratios to students than were staff survey results, likely because of their similar observance of class schedules. AAU staff travel pattern survey results were similar to a more typical workplace location (with morning and evening commute patterns as compared to varied class schedules). Therefore, for AAU staff persons, the inbound and outbound split data from the *SF Guidelines* were used. Table 8, Inbound and Outbound Trip Percentages by AAU Population, summarizes the inbound and outbound PM peak hour trip percentages by AAU population type. It shows the inbound and outbound splits for faculty and students are 46 and 54 percent, and the inbound and outbound splits for staff members are 8 and 92 percent. The 2016 survey results indicate that approximately 47 percent of trips taken by all AAU population groups (faculty, staff, and students) occur in the inbound direction and the remaining 53 percent of trips in the outbound direction (see Appendix TR-L).

[37] Surveyed sites include 1727 Lombard Street, 620 Sutter Street, 466 Townsend Street, 491 Post Street, 2340 Stockton Street, 180 New Montgomery Street, and 77 New Montgomery Street.

Table 8. Inbound and Outbound Trip Percentages by AAU Population

Type	Inbound	Outbound
Faculty	46%	54%
Staff	8%	92%
Students[1]	46%	54%

Note:
[1] Inbound/outbound split percentages apply to both commuter and resident students.

Source: Atkins, 2010; CHS Consulting Group, 2016.

Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, presents the estimated PM peak hour person and vehicle trips for 23 AAU sites based on the person trip generation and mode split data presented above. The number of vehicle trips was estimated using the average vehicle occupancy rate of 2.25 persons per carpool vehicle.[38] Please refer to Appendix TR for detailed tables of PM peak hour person and vehicle trips for faculty, staff, and students for each individual site.

As presented in Table 9, the 23 AAU sites generate a total of 4,698 person trips (1,865 inbound trips and 2,833 outbound trips [see Appendix TR for a breakdown of inbound and outbound trips]) during the weekday PM peak hour. The number of person trips by site varies from 9 person trips with the approximately 2,000-square-foot gymnasium at 1069 Pine Street to 868 person trips at 180 New Montgomery with approximately 190,000 square feet of institutional use (e.g., classrooms, labs, studios, library, offices, and a café). Of the total PM peak hour person trips for all sites, approximately 13 percent (481 drive-alone person trips and 187 person trips made by carpool) are automobile person trips, 42 percent (1,965 trips) are transit trips, 20 percent (958 trips) are shuttle trips, 3 percent (148 trips) are bicycle trips, and 21 percent (1,009 trips) are walk trips. The five sites that generate the largest number of person trips are 180 New Montgomery Street (866 trips), 77 New Montgomery Street (673 trips), 1849 Van Ness Avenue (492 trips), 58–60 Federal Street (455 trips), and 466 Townsend Street (518 trips). The largest portion of these weekday PM peak hour person trips is associated with commuter students (approximately 54 percent of total trips); residential students represent approximately 23 percent, staff represent approximately 17 percent, and faculty represent approximately 6 percent of the total weekday PM peak hour trips, respectively.

Traffic

The approximately 4,698 PM peak hour person trips result in 542 vehicle trips from all 23 of the existing sites. Because private vehicles are parked in a variety of on- and off-street parking facilities throughout the east side of the City, vehicle trips are distributed throughout a wide range of streets near the existing sites. In addition, the 542 vehicle trips include both inbound and outbound travel. Therefore, the vehicle trips generated by the AAU existing sites do not add

[38] Vehicle trips were estimated by dividing the number of carpool person trips by the vehicle occupancy rate of 2.25, except for the 950 Van Ness Avenue site which assumed a vehicle-occupancy rate of 2.0 for rideshare vehicles. The occupancy rate was provided in the travel behavior surveys for AAU students and faculty and staff and in consultation with the San Francisco Planning Department.

Table 9. Existing Sites PM Peak Hour Person and Vehicle Trips by Mode

ES	AAU Building	Person Trips							Vehicle Trips
		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	
Near Market Study Corridor									
13	860 Sutter Street	0	0	5	59	4	35	103	0
14	817–831 Sutter Street	0	0	7	76	5	45	133	0
16	1069 Pine Street	1	0	4	1	0	2	8	1
17	1055 Pine Street	0	0	5	54	4	32	95	0
20	620 Sutter Street	0	0	4	43	3	26	76	0
23	491 Post Street	23	1	109	55	5	75	268	24
27	77 New Montgomery Street	60	11	295	109	23	175	673	65
28	180 New Montgomery Street	77	14	380	140	30	225	866	83
Subtotal		*161*	*26*	*809*	*537*	*74*	*615*	*2,222*	*173*
Outside Market Study Corridor									
1	2340 Stockton Street	29	10	103	27	6	29	204	33
2	2295 Taylor Street	13	4	46	12	3	13	91	15
3	1727 Lombard Street	0	0	3	35	2	21	61	0
4	2211 Van Ness Avenue	0	0	1	8	1	5	15	0
5	2209 Van Ness Avenue	0	0	1	12	1	7	21	0
6	2151 Van Ness Avenue	6	2	22	7	1	6	44	7
8	1849 Van Ness Avenue	69	24	249	66	14	70	492	80
9	1916 Octavia Street	0	0	1	15	1	9	26	0
10	950 Van Ness Avenue	2	2	4	0	0	1	9	3
11	1153 Bush Street	0	0	1	10	1	6	18	0
12	1080 Bush Street	0	0	3	38	3	23	67	0
30	58–60 Federal Street	64	22	230	61	13	65	455	74
31	601 Brannan Street	47	16	170	45	10	48	336	54
33	460 Townsend Street	17	6	60	16	3	17	119	19
34	466 Townsend Street	73	25	262	69	15	74	518	84
Subtotal		*320*	*111*	*1,156*	*421*	*74*	*394*	*2,476*	*369*
Grand Total		481	137	1,965	958	148	1,009	4,698	542

Note: The numbers presented in the table herein may marginally differ from calculations provided in the technical appendix due to rounding.

Source: CHS Consulting Group, 2015.Transit Screenline Analysis.

substantially to vehicular traffic in any one specific location. Based on the low level of additional traffic and the wide distribution of vehicle trips, the changes in use at AAU existing sites have not combined to cause substantially altered traffic conditions. However, a recommended Condition of Approval to implement a Transportation Management Plan (TMP) and a Transportation Demand Management Strategy, encouraging AAU to reduce staff and faculty vehicle trips and parking demand, is suggested. The Transportation Management Plan is a management and operating plan designed to provide multimodal access to existing and future AAU sites. The purpose of the plan is to ensure safe and efficient access by promoting and facilitating the use of AAU's shuttle service, nearby public transit services, and pedestrian and bicycle infrastructure for travel to and from AAU facilities, thereby reducing transportation impacts on the surrounding neighborhoods. The plan's primary goal is to facilitate multi-modal access to/from the AAU facilities for all employees and students. The purpose of the TMP is to outline strategies to optimize access to and from AAU facilities within the constraints of the existing transportation network. Its main goal is to ensure safe and efficient access for all modes with a particular focus on promoting pedestrian, bicycle, and transit access to all AAU facilities and adjacent mix of uses, thereby reducing impacts on the transportation network. Appendix TDM, presented at the end of this Memorandum, provides details of the Draft Transportation Demand Management program that are summarized here.

Recommended Condition of Approval, **Transportation Demand Management Strategies**. AAU should implement Transportation Demand Management (TDM) strategies such as the following to reduce single occupancy vehicle (SOV) trips. The TDM program targets a reduction in SOV trips by encouraging persons to select other modes of transportation, including walking, bicycling, transit, car-share, carpooling and/or other modes.

- Identify a TDM coordinator with responsibility for implementing and operating all TDM measures.
- Provide information on alternate modes of transportation such as transit service and rideshare programs to staff/faculty upon hire and to students upon request.
- Conduct TDM program monitoring, collecting data on implemented strategies and their effectiveness on vehicle trip reduction.
- Consider a subsidy for staff/faculty for Muni monthly passes with initial hire or on an on-going basis.
- Implement a Transportation Management Plan to provide multimodal access to existing AAU sites.

Transit

As presented in Table 9, above, the AAU institutional and residential uses generate a total of approximately 1,965 transit riders during the PM peak hour. Most of the transit riders for AAU consist of commuter students and AAU faculty and staff, because most residential students use the AAU shuttle bus service or walk. Transit riders in San Francisco typically have multiple transit options to reach their destinations and choose a route based on several factors, including reliability, headways, travel time, type of transit, comfort, and convenience. Based on this understanding, four screenlines (Northeast, Northwest, Southeast, and Southwest) have been established by the San Francisco Planning Department to evaluate San Francisco Municipal Railway (Muni) operations into and out of the greater downtown area (in the peak direction), roughly corresponding to

Superdistricts 1, 2, 3, and 4, respectively. The performance standard for local (Muni) transit crowding impacts is 85 percent capacity utilization.

Of the total 1,965 transit trips generated by AAU, it is expected that approximately 603 transit trips are served by Muni in the peak outbound direction during the PM peak hour (see Appendix TR). The remaining 1,362 transit trips are served by regional transit providers in the peak direction (550 trips) or occur in the non-peak direction (812 trips) on either Muni or regional transit. Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, shows that without AAU transit riders (the “Existing” columns), all local transit screenlines and corridors operate below Muni’s performance standard of 85 percent capacity utilization in the PM peak hour. With the addition of 603 PM peak hour transit trips from AAU in the outbound direction on multiple Muni lines, Muni screenlines and corridors experience an increase in transit demand (capacity utilization). Most screenlines and corridors continue to operate below Muni’s 85 percent capacity utilization performance standard during the PM peak hour, except the Fulton/Hayes Corridor in the Northwest Screenline which increases from 82 percent to 85 percent capacity utilization with the additional AAU transit trips. The AAU existing sites contribute approximately 3.2 percent to this corridor within the Northwest screenline. AAU’s contribution, causing the Fulton/Hayes Corridor to operate at the performance standard rather than below the standard, is a substantial effect on the transit system. Based on these findings, while the transit trips generated by AAU uses are generally accommodated on existing transit service without substantially affecting capacity utilization and service, this is not the case for the Fulton/Hayes Corridor.

Detailed transit screenline assignments and calculations are provided in Appendix TR-G.

The AAU institutional uses would be subject to the City’s Transportation Sustainability Fee (TSF) related to changes in use when the change generates a greater number of transit trips than occurred with the prior use. In addition, non-residential changes of use in some cases would be subject to the Transit Impact Development Fee (TIDF) as part of the building permit process. Both fees are described in detail in Planning Code Section 411. The TSF attempts to recover the cost of carrying additional riders generated by new development by obtaining fees on a square footage basis. The TSF funds are used to improve the City’s public transit system, offsetting the effects of development and maintaining service standards. The TSF offsets impacts on the City’s entire transportation network, including effects on the transportation infrastructure that support pedestrian and bicycle travel. Therefore, the TSF would offset some of the demand associated with AAU’s sites; however, this would not reduce the substantial effect.

The effects on regional transit demand are presented for the three regional screenlines. AAU is expected to generate a total of 550 regional transit trips in the outbound direction during the PM peak hour. As shown in Table 11, Regional Transit Screenlines – PM Peak Hour Outbound, most of these trips are through the East Bay Screenline (about 307 trips), including 266 trips on the Bay Area Rapid Transit (BART). Approximately 158 outbound transit trips cross the South Bay Screenline, and the remaining 85 trips cross the North Bay Screenline.

Table 10. Muni Downtown Transit Screenlines – PM Peak Hour Outbound

Screenline/Corridor	Existing			Existing Plus AAU Uses		
	Ridership	Capacity	Capacity Utilization	AAU Ridership	Total Ridership	Capacity Utilization
Northeast						
Kearny/Stockton Corridor	2,158	3,291	66%	144	2,299	70%
All Other Lines	570	1,078	53%	38	607	56%
Subtotal	*2,728*	*4,369*	*62%*	*182*	*2,907*	*67%*
Northwest						
Geary Corridor	1,814	2,528	72%	71	1,885	75%
California	1,366	1,686	81%	53	1,420	84%
Sutter/Clement	470	630	75%	18	488	78%
Fulton/Hayes	965	1,176	82%	38	1,003	*85%*
Balboa	637	929	69%	25	662	71%
Subtotal	*5,252*	*6,949*	*76%*	*205*	*5,458*	*79%*
Southeast						
Third Street	550	714	77%	18	568	80%
Mission Street	1,529	2,789	55%	49	1,580	57%
San Bruno/Bayshore	1,320	2,134	62%	43	1,364	64%
All Other Lines	1,034	1,712	60%	34	1,068	62%
Subtotal	*4,433*	*7,349*	*60%*	*144*	*4,580*	*62%*
Southwest						
Subway Lines	4,747	6,294	75%	56	4,803	76%
Haight/Noriega	1,105	1,651	67%	13	1,118	68%
All Other Lines	276	700	39%	3	279	40%
Subtotal	*6,128*	*8,645*	*71%*	*72*	*6,201*	*72%*
Total All Muni Screenlines	**18,541**	**27,312**	**68%**	**603**	**19,145**	**70%**

Note: The numbers presented in the table herein may marginally differ from calculations provided in the technical appendix due to rounding.

Source: CHS Consulting Group, 2015.

Table 11. Regional Transit Screenlines – PM Peak Hour Outbound

Screenline/ Corridor	Existing			Existing Plus AAU Uses		
	Ridership	Capacity	Capacity Utilization	AAU Ridership	Total Ridership	Capacity Utilization
East Bay						
BART	19,716	22,050	89%	266	19,986	91%
AC Transit	2,256	3,926	57%	30	2,287	58%
Ferries	805	1,615	50%	11	816	51%
Subtotal	*22,777*	*27,591*	*83%*	*307*	*23,089*	*84%*
North Bay						
Golden Gate Transit Buses	1,384	2,817	49%	50	1,435	51%
Golden Gate Transit Ferries	968	1,959	49%	35	1,003	51%
Subtotal	*2,352*	*4,776*	*49%*	*85*	*2,438*	*51%*
South Bay						
BART	10,682	14,910	72%	128	10,811	73%
Caltrain	2,377	3,100	77%	28	2,406	78%
samTrans	141	320	44%	2	143	45%
Subtotal	*13,200*	*18,330*	*72%*	*158*	*13,359*	*73%*
Total All Regional Screenlines	**38,330**	**50,697**	**76%**	**550**	**38,887**	**77%**

Note: The numbers presented in the table herein may marginally differ from calculations provided in the technical appendix due to rounding.

Source: CHS Consulting Group, 2015.

Overall, these trips contribute less than 2 percent to the total existing ridership of the East Bay Screenline, with the total BART load reaching 91 percent; however, this increase in transit ridership continues to be below BART's standard of 100 percent of capacity utilization. The AAU-related transit trips contribute approximately 3.6 percent to the total existing ridership of the North Bay Screenline and approximately 1 percent to the total existing ridership of the South Bay Screenline, and all screenlines remain below 100 percent of capacity utilization performance standard.

Freight Delivery and Service Vehicles

Methodology

The freight delivery/service vehicle demand is estimated for each site based on the methodology and truck trip generation rates presented in the *SF Guidelines*. Although some of the AAU sites may include other uses (such as the restaurant use at 1055 Pine Street), a predominant land use (residential or institutional) was used, unless otherwise noted. On the basis of the existing land use types (i.e., residential and institutional), each AAU site would generate a varying amount of delivery/service vehicle stops per day in each AAU site. Detailed loading demand calculations are provided in Appendix TR-H.

Loading Demand

Although AAU is not a centralized campus, most deliveries, except food and some program and residential deliveries, occur at the 77 New Montgomery Street centralized receiving area and are then distributed to the other buildings owned or operated by AAU. The 77 New Montgomery Street building has a loading dock along Jessie Street between Second and New Montgomery streets; most deliveries occur at this loading dock. Some delivery vehicles use the on-street loading zones and passenger loading zones along New Montgomery Street. Food service deliveries are made to 620 Sutter Street and 1055 Pine Street and distributed to other AAU sites from there.

The existing AAU sites generate a range of less than one to 19 average daily commercial delivery/service vehicle trips; the highest demand (with 190,000 sf of classroom, lab/studio, office and lounge spaces) is 180 New Montgomery Street, with an estimated 19 delivery/service vehicle trips per day. An additional approximately 15 delivery/service vehicle trips per day are generated by 77 New Montgomery Street. The resulting demand for loading space ranges from none at most of the existing AAU sites to one loading space to serve 180 New Montgomery. The uses at 77 New Montgomery Street and 466 Townsend Street each result in a loading demand of just under one space in the peak loading hour. The need for off-street loading space is specific to each existing AAU site. Loading demand from each of the sites would not result in a combined effect, nor would loading demand from a group of AAU buildings combine to contribute to a significant effect on traffic from freight and service delivery vehicles. Loading at each of the individual site assessments is discussed in Chapter 4.

Parking

Information about parking conditions and parking demand at the existing AAU sites is provided for informational purposes. The discussion does not present an analysis of potential environmental effects from the existing AAU sites either in combination or individually, because parking conditions vary from day to day and location to location. Few of the existing AAU sites include parking spaces, so the parking demand generated by the existing AAU sites must be satisfied mainly by on-street parking and nearby off-street parking facilities when/if space is available. The City’s Transit First Policy, established in San Francisco City Charter Article 8A, Section 8A.115, provides that “parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation.”

Parking Analysis Methodology

Parking demand for the AAU sites was estimated for faculty and staff and their associated visitors separately from commuter students. Based on the travel mode survey data shown in Table 7, AAU PM Peak Hour Modal Split Rates, it is reasonable to assume that residential students largely do not own and/or do not typically drive and park their own personal vehicle on a daily basis. Accordingly, no parking demand associated with residential students was assumed or calculated. Parking demand for faculty, staff, visitors, and commuter students was assumed to be short-term parking demand because these individuals often travel between classes or campus locations throughout the day. Parking demand was estimated for each AAU site. This analysis assumes that the percentage of faculty, staff, and commuter students who drive to school is the same as the mode splits summarized in Table 7, above.

Faculty and Staff and Visitor Parking Demand

For academic/administrative facilities, the parking demand for faculty and staff was derived from the methodology contained in Appendix G of the *SF Guidelines* for commercial uses. Commercial parking demand methodology was selected because the staff trip generation and travel times were found to be similar to typical office uses in the City, and faculty and staff data was not separated in the travel surveys performed for AAU as a whole in 2010. The number of faculty and staff for each AAU site was multiplied by the percentage of faculty and staff who drive (derived from the travel mode survey data), and then by a daily turnover rate of four vehicles per space based on the AAU class schedule.[39] The visitor parking demand was based on the estimated number of visitors that would travel to the AAU buildings on an average day, using the methodology and assumptions presented in the *SF Guidelines*. The *SF Guidelines* indicate that about 83 percent of all daily trips are "work-trips" and 17 percent are "non-work trips." This ratio suggests that approximately every five office workers attract one visitor per day. Thus, visitor parking demand for each AAU site was estimated by applying 20 percent to the estimated faculty and staff parking demand and then by a daily turnover rate of 5.5 vehicles per space and vehicle occupancy rate of 2.37 passengers per vehicle.[40] Detailed parking demand calculations are provided in Appendix TR-I.

Commuter Student Parking Demand

Commuter student parking demand for all AAU sites was estimated based on the total number of commuter students, travel behavior survey results, and the distribution of commuter student trips traveling to/from AAU buildings in proximity to Market Street or outside of Market Street.[41] The number of commuter students for each AAU site was multiplied by the percentage of commuter students who drive (derived from the travel mode survey data) and then by a daily turnover rate of four vehicles per space was applied based on the AAU class schedule.

Combined Parking Demand

The parking demand for AAU sites is summarized in Table 12, Parking Demand (Midday) – Faculty, Staff, and Students. Parking demand from the 23 existing sites analyzed would not result in a combined or cumulative parking shortfall throughout the east side of the City, as most sites are sufficiently separated that parking demand would not overlap.

---

39 AAU provides four class schedule blocks throughout the day.

40 Vehicle occupancy rate was provided in the *SF Guidelines*. All of the existing AAU sites that would have any visitor parking demand are located within Superdistrict 1.

41 For purposes of the transportation analysis, it is conservatively assumed that approximately 85 percent of the total full-time and part-time student enrollment consists of commuter students, of whom 60 percent are on campus any given day and 16 percent either drive or carpool with an average vehicle occupancy rate of 2.25 persons per vehicle.

Table 12: Parking Demand (Midday) – Faculty, Staff and Students

ES #	AAU Site	Faculty/ Staff	Visitor	Commuter Students	Total
1	2340 Stockton Street	4	0	11	15
2	2295 Taylor Street	1	0	5	6
3	1727 Lombard Street	0	0	0	0
4	2211 Van Ness Avenue	0	0	0	0
5	2209 Van Ness Avenue	0	0	0	0
6	2151 Van Ness Avenue	0	0	2	2
8	1849 Van Ness Avenue	2	0	10	12
9	1916 Octavia Boulevard	0	0	0	0
10	950 Van Ness Avenue	0	0	0	0
11	1153 Bush Street	0	0	0	0
12	1080 Bush Street	0	0	0	0
13	860 Sutter Street	0	0	0	0
14	817-831 Sutter Street	0	0	0	0
16	1069 Pine Street	0	0	0	0
17	1055 Pine Street	0	0	0	0
20	620 Sutter Street	0	0	0	0
23	491 Post Street	2	0	12	14
27	77 New Montgomery	2	0	13	16
26	180 New Montgomery	14	2	37	53
30	58-60 Federal Street	4	0	29	33
31	601 Brannan Street	4	0	20	25
33	460 Townsend Street	0	0	3	3
34	466 Townsend Street	7	1	21	29
Total		**40**	**5**	**162**	**207**

Note: The numbers presented in the table herein may marginally differ from calculations provided in the technical appendix due to rounding.

Source: CHS Consulting Group, 2015.

However, there are a few clusters of existing AAU sites where parking demand could overlap to present a potential combined effect. For example, parking demand from the four existing sites in the Townsend Street and Brannan Street area, ES-31 at 601 Brannan Street, ES-32 at 168 Bluxome Street, ES-33 at 460 Townsend Street, and ES-34 at 466 Townsend Street, could combine with each other, but would not combine with sites on Van Ness Avenue or on Nob Hill. Because 168 Bluxome Street is AAU student housing, it is assumed that it would generate little or no parking demand, as AAU does not provide parking for student residents and discourages them from bringing automobiles to San Francisco. Parking demand from the other three buildings in this cluster of AAU sites would be approximately 57 spaces, which could contribute to difficulty finding parking in this area if all drivers were parking their vehicles at the same time, and where on-street parking is typically well used during the day, particularly during the baseball season. There are numerous off-street parking facilities within about two blocks with up to 1,838 spaces; however, many of these lots and garages can be full or are not open to the public. Thus, the combined parking demand from the cluster of AAU buildings in this area contributes to a parking shortfall that is especially notable during days when an event or ballgame is scheduled at AT&T Park.

The two AAU existing sites on New Montgomery Street, at 77-79 New Montgomery and 180 New Montgomery, together have a parking demand of approximately 69 spaces, which contributes to an existing parking shortfall in this area of the Financial District. Up to 5,193 parking spaces are available in several nearby public parking garages, such as the SFMOMA Garage on Minna Street, the Hearst Parking Garage on Jessie Street, and the Moscone Center Garage on Third Street, but they are often at or close to capacity. Both on- and off-street parking would be expensive for most students, and likely for faculty and staff as well.

The AAU existing sites in the Nob Hill area, along Sutter, Bush and Pine streets, are mainly student housing sites with little parking demand; therefore, they would not be expected to combine to produce a notable effect on parking in this dense area of the City.

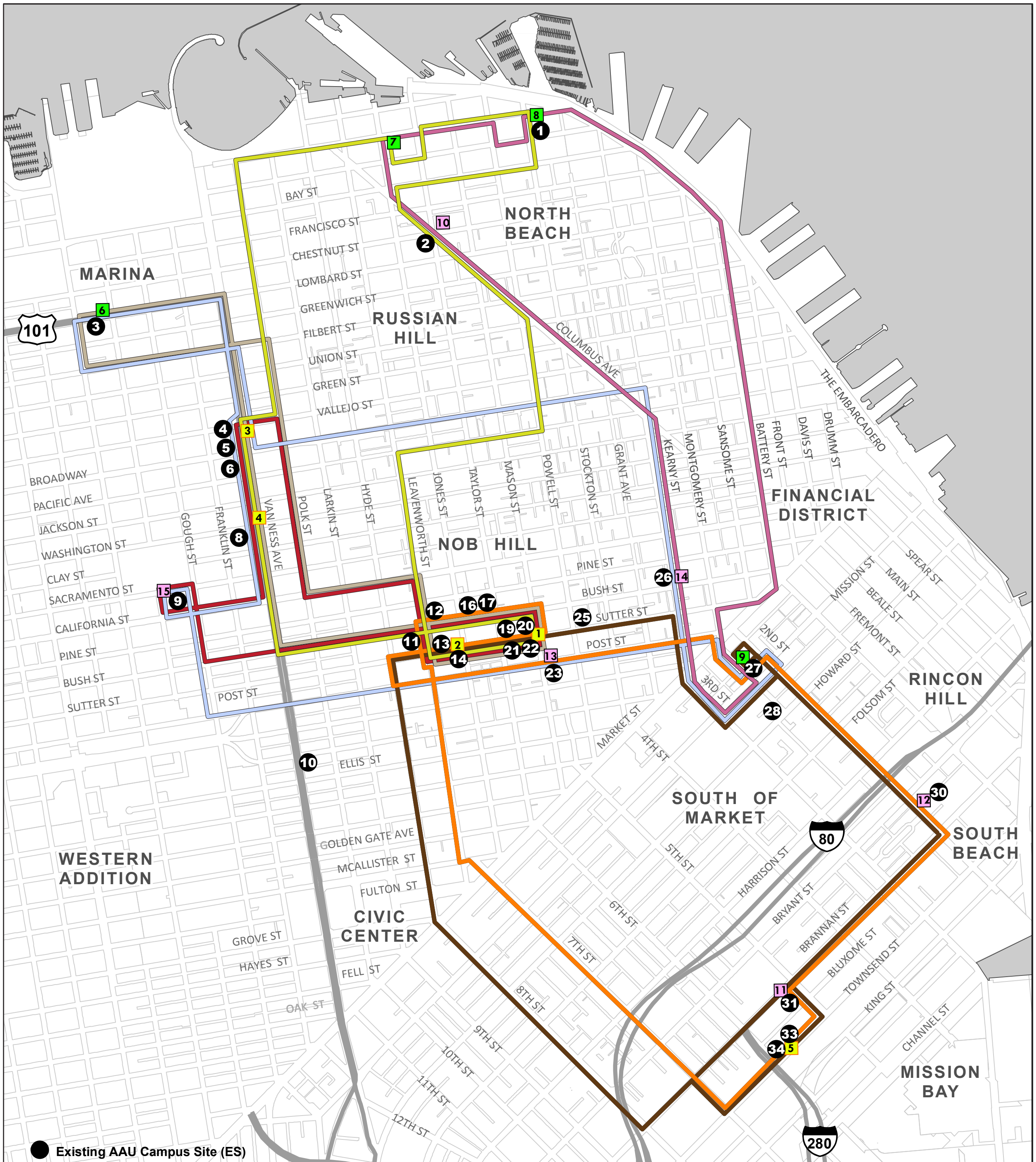
3.4.6. Systemwide Assessment of AAU Shuttle Buses

Introduction

AAU began shuttle bus services in 1990, operating in a loop between Sutter Street and 2340 Stockton Street (ES-1). The AAU shuttle system has evolved over time to reflect the changing needs of its riders and AAU programs, and to improve its efficiency. AAU operates fixed-route and on-demand shuttle services throughout the year. Fixed-route shuttle service provides connections between residential halls and institutional and administrative buildings for AAU students, faculty, and staff within the City. On-demand shuttle services are provided to transport students to field trips or athletic activities throughout the San Francisco Bay Area and to transport students, faculty/staff, and visitors to performances or campus tours.

In fall 2010, AAU had a fleet of 65 vehicles of various sizes. Of this fleet, 15 vehicles (23 percent) were used for fixed-route shuttle services, 26 vehicles (50 percent) were used for on-demand shuttle services, and 24 vehicles (37 percent) were used for security, maintenance, and other AAU uses. As of spring 2015, AAU has acquired 22 additional vehicles and has sold or retired 20 vehicles, for a total fleet of 67 vehicles.

In 2010, AAU performed a comprehensive evaluation of the fixed-route shuttle bus system, resulting in systemwide changes, including the consolidation of 22 routes to 14 routes (seven for weekdays and seven for weekends), creation of hubs for transfers, and modifications to shuttle stop locations, as shown in Figure 2, 2010 AAU Shuttle Service Routes and Stops, and Figure 3, 2015 AAU Shuttle Service Routes and Stops. AAU also internally adopted a Shuttle Bus Policy in the summer of 2014, which sets general guidelines for establishing and operating shuttle bus services (see the TDM Checklist in Appendix TDM, and see Appendix TR-A for the Shuttle Bus Policy). The Shuttle Bus Policy outlines the type of shuttle bus services being provided, shuttle stops, overall operating policies, and AAU's approaches to shuttle management, coordination, and communication. It also describes how the frequency of services is examined prior to the start of each semester and adjusted during semesters.



2010 Shuttle Routes
- Route D
- Route E
- Route H
- Route I
- Route M
- Route Q
- Route R

Shuttle-Only Stop
1. 620 Sutter Street (Routes D, H, I, Q, R)
2. 860 Sutter Street (Routes D, H, I, Q, R)
3. 2209 Van Ness Avenue (Routes D, M, Q, R)
4. 1849 Van Ness Avenue (Routes D, M, Q, R)
5. 466 Townsend Street (Routes H, I)

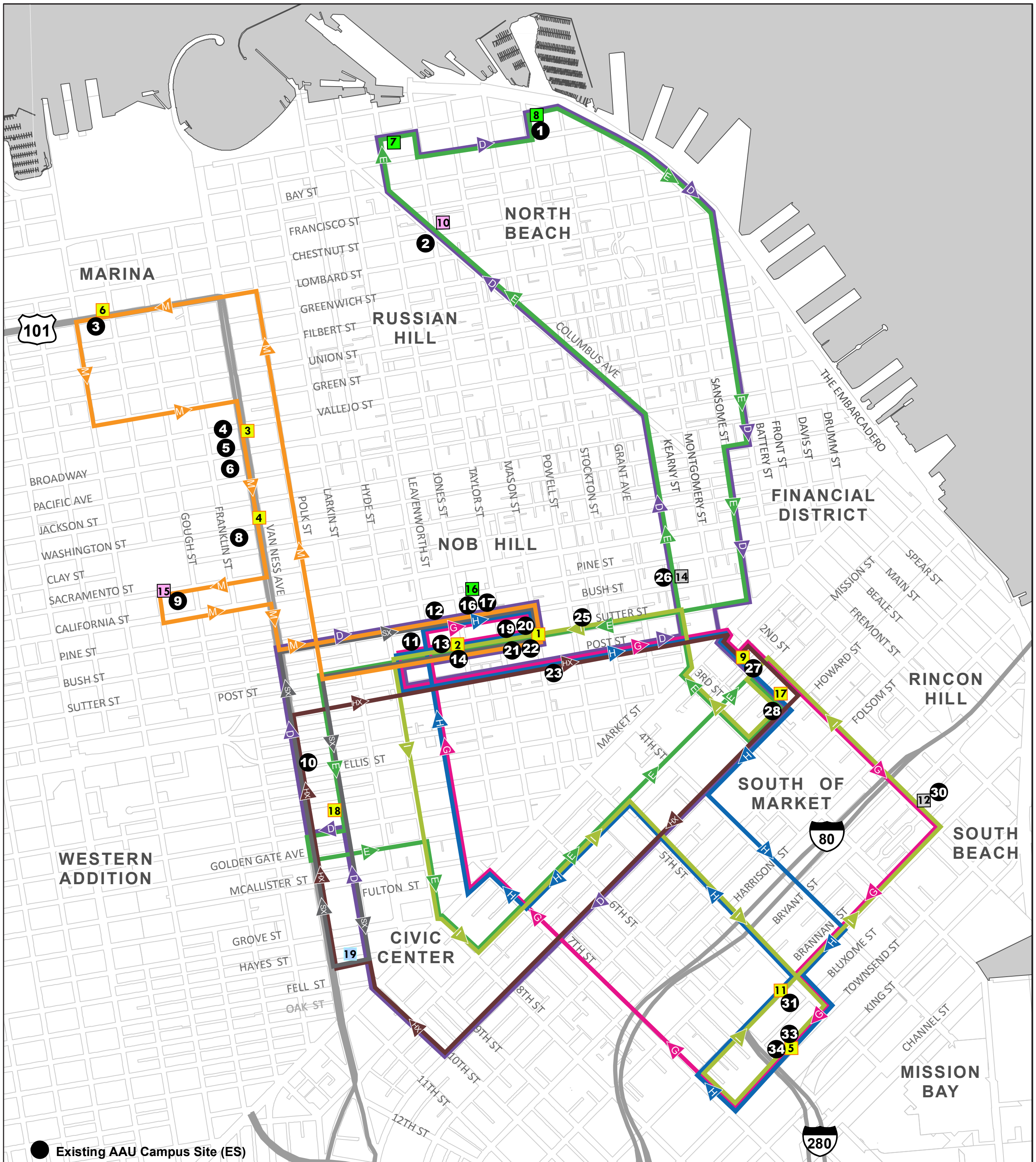
White Passenger Loading Zone
6. 1727 Lombard Street (Routes M, Q)
7. 1300 Columbus Avenue (Routes D, E)
8. 2340 Stockton Street (Routes D, E)
9. 77 New Montgomery Street (Routes E, H, I, M)

Unofficial Stops
10. 2295 Taylor Street (Routes D, E)
11. 601 Brannan Street (Routes H, I)
12. 58-60 Federal Street (Routes H, I)
13. 491 Post Street (Route H) - Flag Stop
14. 410 Bush Street (Routes E, M) - Flag Stop
15. 1916 Octavia Street (Routes M, R)

Source: Academy of Art University (2013)

Feet 0 2,000

FIGURE 2: 2010 AAU SHUTTLE SERVICE ROUTES AND STOPS



2015 Shuttle Routes
- Route D
- Route E
- Route H
- Route I
- Route M
- Route G
- Sutter Express (SX)
- Hayes Express (HX)

Shuttle-Only Stop
1. 620 Sutter Street (Routes D, E, G, H, I, SX)
2. 860 Sutter Street (Routes D, E, G, H, I, M, SX)
3. 2209 Van Ness Avenue (Route M)
4. 1849 Van Ness Avenue (Route M)
5. 466 Townsend Street (Routes G, H, I)
6. 1727 Lombard Street (Route M)
9. 77 New Montgomery Street (G, HX)

Shuttle-Only Stop (continued)
11. 601 Brannan Street (Routes G, H, I)
17. 180 New Montgomery Street (Routes D, E, H, I)
18. 625 Polk Street (Routes D, E, SX)

White Passenger Loading Zone
7. 1300 Columbus Avenue (Routes D, E)
8. 2340 Stockton Street (Routes D, E)
16. 1055 Pine Street (SX)

Inside Garage
19. 150 Hayes Street (Route HX)

Unofficial Stops
10. 2295 Taylor Street (Routes D, E)
(Stop removed as of April 18, 2016)

No Designated Stops
12. 58-60 Federal Street (Route G)
14. 410 Bush Street (Routes D, E)
15. 1916 Octavia Street (Route M)

Source: Academy of Art University (2015)

Feet
0 2,000

FIGURE 3: 2015 AAU SHUTTLE SERVICE ROUTES AND STOPS

An overview of the fall 2010 and spring 2015 AAU shuttle bus system and its services is presented below. The 34 existing AAU sites for the most part have been served by the existing fixed shuttle routes since 2010.[42] The shuttle analysis for the 23 existing sites focuses on shuttle trip generation, shuttle routes and stop location(s), capacity utilization of shuttle routes, where known, and a circulation analysis. As part of AAU's 2010 evaluation, AAU collected capacity utilization data for each shuttle route on April 29, 2010. Therefore, 2010 capacity utilization data are referenced as appropriate. Updated AAU shuttle route capacity utilization data since 2010 are not available; however, other shuttle ridership data from 2015 are presented below.

This discussion presents the fixed-route and on-demand shuttle services, followed by their effect on air quality and noise. Effects on transportation and circulation are site-specific and described in Section 4.2, Individual Site Assessments, in Chapter 4.

Fixed-Route Shuttle Services

Shuttle Routes and Service Frequencies

In fall 2010, AAU operated a total of seven fixed shuttle routes during weekdays, five routes on Saturdays, and two routes on Sundays. The shuttles generally operated between the hours of 7:00 a.m. and 12:00 a.m. in conjunction with class and lab times. The headways ranged between 10 and 60 minutes, depending on the route, with little variation in headways throughout the day. Table 13, AAU Fall 2010 Fixed-Route Shuttle Service, summarizes the fixed-route shuttle service available during the 2010 fall semester.

AAU's fixed-route shuttle system evolved between 2010 and 2015. Route structures and headways were modified, and express routes were added during peak periods to accommodate the changing shuttle demand throughout the day. As of spring 2015, AAU operates a total of 13 fixed shuttle routes during weekdays (six regular routes and seven express routes), an increase of six routes since 2010. Six of the 13 fixed shuttle routes operate throughout the day and the remaining seven routes operate during the peak shuttle operation periods only, generally between 11:00 a.m. and 4:00 p.m. Weekend service has been reduced from three routes to two routes on Saturdays and from two routes to one route on Sundays. Table 14, AAU Spring 2015 Fixed-Route Shuttle Service, summarizes the fixed-route shuttle service for the 2015 spring semester. Note that because the routes were substantially altered between 2010 and 2015, the frequency (headways) between Table 13 and Table 14 are not comparable. Appendix TR-B includes shuttle route maps for fall 2010 and spring 2015.

Shuttle Stop Locations

In fall 2010, AAU shuttle buses stopped at 15 locations throughout the City (see Table 15, AAU Fall 2010 Fixed-Route Shuttle Stops). These locations are detailed under Section 4.2, Individual Site Assessments, in Chapter 4, except for Jones Street/Beach Street and 410 Bush Street, which

[42] Exceptions are the 180 New Montgomery Street and 950 Van Ness Avenue sites. New fixed-route shuttle service was added to 180 New Montgomery Street in 2011. The 950 Van Ness Avenue site is a classic vehicle museum and does not have a shuttle stop.

Table 13. AAU Fall 2010 Fixed-Route Shuttle Service

Route	Headways (min.)			Hours of Operation
	Midday/Eve	AM Peak	PM Peak	
Monday through Friday				
D	15–20	15–20	15–20	7:02 a.m.–12:12 a.m.
E	15	15	15	7:15 a.m.–12:10 a.m.
H	10–15	10–15	10–15	7:15 a.m.–2:05 a.m.
I	10–20	10–15	10–20	7:12 a.m.–12:20 a.m.
M	50	45	60	7:10 a.m.–11:50 p.m.
Q	30	30	30	7:15 a.m.–12:15 a.m.
R	30	30	30	7:15 a.m.–12:10 a.m.
Saturday				
1	35	35	35	7:15 a.m.–12:05 a.m.
2	35	35	35	7:20 a.m.–12:30 a.m.
3	40	40	40	7:15 a.m.–12:15 a.m.
4	35	35	35	7:25 a.m.–12:17 a.m.
5	40	40	40	7:40 a.m.–11:35 p.m.
Sunday				
1	40	40	40	7:15 a.m.–9:05 p.m.
2	50	50	50	7:15 a.m.–9:12 p.m.

Source: AAU, 2010.

Table 14. AAU Spring 2015 Fixed-Route Shuttle Service

Route	Headways			Hours of Operation
	Midday/Evening	AM Peak	PM Peak	
Monday through Friday (Regular)				
D	60	30	30	7:22 a.m.–11:10 p.m.
E	55	30	30	7:33 a.m.–10:35 p.m.
G	60	30	30	7:30 a.m.–10:07 p.m.
H	40	20	20	7:15 a.m.–11:09 p.m.
I	40	20	20	7:15 a.m.–11:15 p.m.
M	35	20	20	7:02 a.m.–11:21 p.m.
Monday through Friday (Express)				
1	Twice a day	N/A	N/A	11:25 a.m.–3:28 p.m.
2	Twice a day	N/A	N/A	11:25 a.m.–3:30 p.m.
3	Once a day	N/A	N/A	6:30 p.m.–6:55 p.m.
4	40	N/A	N/A	12:07 p.m.–3:50 p.m.
5	Twice a day	N/A	N/A	11:25 a.m. – 3:25 p.m.
Sutter Express	40	25	25	7:40 a.m.–4:30 p.m.
Hayes Express	30	30	30	7:35 a.m.–6:50 p.m.
Saturday				
1	70	45	45	7:39 a.m.–11:10 p.m.
2	75	45	45	7:44 a.m.–11:04 p.m.
3	65	45	45	7:30 a.m.–11:07 p.m.
4	40	40	40	7:40 a.m.–10:06 p.m.
Sunday				
1	80	75	75	7:33 a.m.–8:48 p.m.

Source: AAU, 2015.

Table 15. AAU Fall 2010 Fixed-Route Shuttle Stops

Shuttle Stop	Weekday Routes Serving Shuttle Stop	Weekend Routes Serving Shuttle Stop	Type of Stop[1]
620 Sutter Street	D, H, I, Q, R	Sat 1, 2, 3, 4; Sun 1, 2	Shuttle-Only Stop
860 Sutter Street	D, H, I, Q, R	Sat 1, 2, 3, 4; Sun 1, 2	Shuttle-Only Stop
2295 Taylor Street	D, E	Sat 4	Unofficial (had been at Muni Bus Stop)
2340 Stockton Street	D, E	Sat 4	White Passenger Loading Zone
Jones & Beach Streets	D, E	Sat 4; Sun 2	White Passenger Loading Zone
2209 Van Ness Avenue	D, M, Q, R	Sat 2, 4, 5; Sun 2	Shuttle-Only Stop
1849 Van Ness Avenue	D, M, Q, R	Sat 2, 4, 5; Sun 2	Shuttle-Only Stop
77 New Montgomery Street	E, H, I, M	Sat 1, 3, 5; Sun 1	White Passenger Loading Zone
58–60 Federal Street	H, I	Sat 1, 3; Sun 1	No Designated Stop
601 Brannan Street	H, I	Sat 1, 3; Sun 1	No Designated Stop
466 Townsend Street	H, I	Sat 1, 3; Sun 1	Shuttle-Only Stop
491 Post Street	H	Sat 1	No Designated Stop[2]
1727 Lombard Street	M, Q	Sat 2, 5, Sun 2	White Passenger Loading Zone
1916 Octavia Street	M, R	Sat 2, 5, Sun 2	No Designated Stop
410 Bush Street	E, M	Sat 4, 5	No Designated Stop[3]

Notes:

1 Shuttle-only stop indicates a white passenger loading zone that has been designated by SFMTA as a shuttle-only stop during the hours of shuttle operation; vehicles other than AAU shuttles are restricted from parking or stopping at a shuttle-only stop. White passenger loading zone indicates a white passenger loading zone along the frontage or near an AAU site which is shared with other vehicles. Unofficial stop is a curb space that has vehicle restrictions or a designated Muni bus loading zone (red curb zone).

2 Passengers on the shuttle bus or waiting at 491 Post Street had been required to flag a driver to stop for service. A white passenger loading zone was added along the south side of Post Street in 2011.

3 Passengers on the shuttle bus or waiting at 410 Bush Street were required to flag a driver to stop for service. Students were asked to stand near the northeast corner of Kearny Street and Bush Street and wave at the AAU shuttle as it traveled northbound on Kearny Street. Shuttles no longer provide service to this site. The nearest shuttle stop to this site is located at 77 New Montgomery Street, approximately 0.41 mile (2,200 feet) southeast of the site.

Source: Atkins, 2010.

are not subject to the CU authorization review process and so are not included in individual site assessments for transportation conditions.[43] The shuttle stops at 620 Sutter Street (ES-20) and 77 New Montgomery Street (ES-27) served as shuttle transfer hubs, and the layovers occurred at 2340 Stockton Street (ES-1) and 1727 Lombard Street (ES-3).

As of spring 2015, the number of shuttle stops increased from 15 to 18 locations. The additional shuttle stop locations include 1055 Pine Street, 625 Polk Street, 150 Hayes Street, and 180 New Montgomery Street. The shuttle stops at 620 Sutter Street and 180 New Montgomery Street serve as a shuttle transfer hub, and the layovers occur at 2340 Stockton Street, 1727 Lombard Street, and 466 Townsend Street. The spring 2015 stop locations are summarized in Table 16, AAU Spring 2015 Fixed-Route Shuttle Stops.

Shuttle Ridership

In fall 2010, AAU fixed-shuttle routes carried approximately 9,175 daily passengers on weekdays, 2,696 passengers on Saturdays, and 611 passengers on Sundays.[44] Shuttle ridership fluctuated throughout the day in conjunction with class times and was observed to vary from 200 to 1,200 passengers per hour. The seven weekday shuttle routes in 2010 combined carried approximately 493 passengers during the afternoon peak commute hour. The peak hour of systemwide shuttle demand occurred between 11:00 a.m. and 12:00 p.m. with up to 1,256 passengers.

Shuttle capacity utilization (riders as a percentage of van capacity) ranged widely in 2010. The peak hour of operation was 11:00 a.m. to 12:00 p.m., with an average of 88 percent capacity utilization for all seven weekday shuttle routes combined, and three of the routes (H, I, and Q) operated near or above 100 percent capacity during this time (at 126, 130, and 96 percent, respectively).

Table 17, AAU Fall 2010 Shuttle Ridership and Capacity Utilization, summarizes the daily, PM peak hour (5:00 p.m. to 6:00 p.m.) and shuttle peak hour (11:00 a.m. to 12:00 p.m.) ridership and capacity utilization. All seven weekday shuttle routes operated under capacity throughout the day, except for Routes H and I, which operated at or above capacity during the shuttle peak hour. Routes H and I operated through the SoMa area. Capacity utilization is lower during the PM peak hour and other periods of the day than during the shuttle peak hour. Comparing the PM peak hour demand with the shuttle peak hour demand, the PM peak hour demand can reduce to half the demand of the shuttle peak hour.

[43] The shuttle stop at Jones and Beach streets serves the Cannery (2801 Leavenworth Street). The shuttle buses use the existing 150-foot long white passenger loading zone on the east side of Jones Street south of Beach Street. 410 Bush Street, which is evaluated for historic resource review, provides a flag stop at the northeast corner of Kearny and Bush streets. Passengers on this shuttle bus or at 410 Bush Street are required to flag a driver to stop for service. Students are asked to stand near the northeast corner of Kearny and Bush streets and wave the AAU shuttle as it travels northbound on Kearny Street.

[44] Ridership is based on AAU shuttle passenger boarding data from September 27, 2010 through October 8, 2010.

Table 16. AAU Spring 2015 Fixed-Route Shuttle Stops

Shuttle Stop	Weekday Routes Serving Shuttle Stop	Weekend Routes Serving Shuttle Stop[1]	Type of Stop[2]
620 Sutter Street	D, E, G, H, I, Sutter Express	Sat 1, 2, 3, 4; Sun 1	Shuttle-Only Stop
860 Sutter Street	D, E, G, H, I, M, Sutter Express	Sat 1, 2, 3, 4; Sun 1	Shuttle-Only Stop
2295 Taylor Street	D, E	Sat 1; Sun 1	No Designated Stop[3]
2340 Stockton Street	D, E	Sat 1	White Passenger Loading Zone
Jones & Beach Streets	D, E	Sat 1; Sun 1	White Passenger Loading Zone
2209 Van Ness Avenue	M	Sat 4; Sun 1	Shuttle-Only Stop
1849 Van Ness Avenue	M	Sat 4; Sun 1	Shuttle-Only Stop
77 New Montgomery Street	G and Hayes Express	None	Shuttle-Only Stop
58–60 Federal Street	G	Sat 3; Sun 1	No Designated Stop
601 Brannan Street	G, H, I	Sat 2, 3; Sun 1	Shuttle-Only Stop
466 Townsend Street	G, H, I	Sat 2, 3; Sun 1	Shuttle-Only Stop
1727 Lombard Street	M	Sat 4; Sun 1	Shuttle-Only Stop
1916 Octavia Street	M	Sat 4; Sun 1	No Designated Stop
410 Bush Street	D, E	Sat 1; Sun 1	No Designated Stop[4]
1055 Pine Street	Sutter Express	None	White Passenger Loading Zone
625 Polk Street	D, E, Sutter Express	Sat 2, 3; Sun 1	Shuttle-Only Stop
150 Hayes Street	Hayes Express	None	Inside Garage
180 New Montgomery Street	D, E, H, I	Sat 1, 2, 3; Sun 1	Shuttle-Only Stop

Notes:

1 Express Routes (#1, #2, #3, #4, and #5) are not shown because they operate only once or twice a week and do not regularly stop due to low demand.

2 Shuttle-only stop indicates a white passenger loading zone that has been designated by SFMTA as a shuttle-only stop during the hours of shuttle operation; vehicles other than AAU shuttles are restricted from parking or stopping at a shuttle-only stop. White passenger loading zone indicates a white passenger loading zone along the frontage or near an AAU site which is shared with other vehicles. Unofficial stop is a curb space that has vehicle restrictions or a designated Muni bus loading zone (red curb zone).

3 Since the vacation of the second floor of the building in October 2014, there has been very little shuttle use of this location and the AAU shuttle has slowed down to check for any passengers and then briefly parked in available curb space or double parked along the east side of Columbus Avenue. The shuttle stop was removed as of April 18, 2016.

4 Passengers on the shuttle bus or at 410 Bush Street were required to flag a driver to stop for service. Students were asked to stand near the northeast corner of Kearny Street and Bush Street and wave at the AAU shuttle as it traveled northbound on Kearny Street. Shuttles no longer provide service to this site. The nearest shuttle stop to this site is located at 77 New Montgomery Street, approximately 0.41 mile (2,200 feet) southeast of the site.

Source: AAU, 2015.

Table 17. AAU Fall 2010 Shuttle Ridership and Capacity Utilization

Route	Daily		PM Peak Hour (5 p.m. to 6 p.m.)		Shuttle Peak Hour	
	Ridership	Average Weekday Utilization[1]	Ridership during PM Peak Hour	Utilization during PM Peak Hour	Ridership during Systemwide Peak Hour (11 a.m.–12 p.m.)	Utilization during Route Peak Hour (varies by route)
D	625	11%	30	30%	84	64%
E	516	12%	25	30%	78	63%
H	4,204	25%	192	63%	615	**126%**
I	2,937	27%	211	78%	390	**130%**
M	146	12%	5	44%	7	81%
Q	428	15%	7	29%	48	96%
R	319	11%	24	18%	35	55%
Total	9,175	16%	493	42%	1,256	88%

Notes:

1 Average weekday utilization represents the average level of usage for the entire route throughout the day for all stop locations.

2 Passenger load above 100 percent capacity is indicated in **bold**.

Source: AAU, 2014; CHS Consulting 2015.

In spring 2015, AAU shuttle services carried approximately 3,870 daily passengers on weekdays, 412 passengers on Saturdays, and 124 passengers on Sundays. The number of weekday shuttle passengers represents a 57 percent decrease in daily ridership compared to fall 2010. Shuttle ridership fluctuated throughout the day from 30 to 585 passengers per hour. The 13 weekday shuttle routes in 2015 combined carry approximately 220 passengers during the afternoon peak commute hour. The peak hour of systemwide shuttle demand occurred between 3:00 p.m. and 4:00 p.m. with up to 585 passengers during the hour. Table 18, AAU Spring 2015 Shuttle Ridership, summarizes the daily, PM peak hour (5:00 p.m. to 6:00 p.m.), and shuttle peak hour (3:00 p.m. to 4:00 p.m.) ridership.

In order to verify reduced shuttle ridership, a trip generation and travel behavior survey was conducted during the third week of March 2016. The survey findings confirmed that while the share of shuttle users has increased, the overall trip generation has gone down by more than half, which contributed to a reduction in shuttle demand systemwide by approximately 30 percent. The difference in survey methodologies and sampling size between the 2010 and the 2016 surveys may have also contributed to additional difference in shuttle demand. The decrease in trip generation is mainly due to lower enrollment in spring 2015, an increase in the number of students who enroll in one or two courses online (in addition to onsite courses), and the growth of private rideshare companies. Additionally, the consolidation of class locations and academic departments resulted in a significant decrease in shuttle demand between academic buildings.[45] Appendix TR-C provides a ridership summary for spring 2015, and Appendix TR-L provides the summary of AAU ESTM trip generation and travel behavior survey results.

Table 18. AAU Spring 2015 Shuttle Ridership

Route	Daily	PM Peak Hour (5 p.m. to 6 p.m.)	Shuttle Peak Hour (3 p.m. to 4 p.m.)
D	519	41	106
E	369	21	55
G	222	10	39
H	1,284	64	200
I	854	56	107
M	439	24	42
Express 1	7	0	3
Express 2	12	0	5
Express 3	2	0	0
Express 4	2	0	2
Express 5	6	0	4
Sutter Express	87	0	14
Hayes Express	67	7	9
Total	**3,869**	**223**	**585**

Source: AAU, 2015; CHS Consulting 2016.

In order to respond to the reduced demand and changing demand patterns, AAU made a significant change in its routes. Overall, routes were centralized and designed to overlap in higher demand areas. Additional shuttle service was provided through route restructuring to SoMa locations, which had previously experienced above-capacity utilization on Routes H and I. In spring 2015, AAU reduced its regular all-day routes from seven routes to six routes and reduced service frequencies for these routes. In place of these reductions, AAU added seven express routes, four of which operate up to two runs a day and one of which operates during the midday period only. These express routes serve most SoMa locations, as well as select sites along Van Ness Avenue and in the Nob Hill and Fisherman's Wharf areas. The total seating capacity was reduced from 925

[45] A significant number of class locations and academic departments have been adjusted and consolidated since fall 2010. For example, in general, the Sculpture program moved to 2801 Leavenworth Street from 410 Bush Street; the Advertising program moved to 410 Bush Street from 58-60 Federal Street; Interior Architecture and Design moved to 601 Brannan Street from 2340 Stockton Street; Fine Art classes have been consolidated at 58-60 Federal Street; Motion Pictures & Television consolidated at 466 Townsend Street (these were formerly divided between 466 Townsend Street and 180 New Montgomery Street); and the Fashion program has been consolidated at 625 Polk Street (the program was formerly divided between 180 New Montgomery Street and 2340 Stockton Street).

to 329 seats during midday, and from 925 to 521 seats during the AM and PM peak hours. Appendix TR-D includes the seating capacity summary for fall 2010 and spring 2015.

On-Demand Shuttle Services

In fall 2010, AAU shuttles made a total of 2,646 on-demand shuttle trips. Approximately 20 percent of on-demand shuttle trips transported student athletes to and from sports tournaments, and 75 percent transported students, faculty, or visitors to performances, campus tours and other school-related activities (called “Easy Trips”). These on-demand shuttle trips occurred throughout the day, on both weekdays and weekends between the hours of 6:00 a.m. and 12:00 a.m., with an average of 26 trips on weekdays. In spring 2015, AAU shuttles made a total of 2,698 on-demand shuttle trips, an increase of two percent. Approximately 17 percent of on-demand shuttle trips transported student athletes and 83 percent were made for “Easy Trips.” Appendix TR-E includes the summary of on-demand shuttle ridership.

3.4.7. Noise

Construction Noise and Vibration

Methodology

Upon occupancy of its 23 existing buildings, AAU implemented tenant improvements. The types of construction activities that occurred at these sites were confirmed through site visits to 29 of the 34 existing AAU sites as well as a review of building permits. Construction activities have primarily consisted of tenant improvements and life safety upgrades, such as installation of drywall for partitions, paint, relocation of or adding light fixtures, new fire sprinkler systems, new fire alarms or upgrades, some seismic retrofit work, and elevator modernizations. This work typically occurred when AAU was on winter or summer break.

The duration of construction activity during AAU breaks was up to about 5 weeks between fall and spring semesters, 5 weeks between spring and summer semesters, and 4 weeks between summer and fall semesters.[46] Most activities, including installation of new footings under the two towers at 2151 Van Ness Avenue, have taken place in the interiors of buildings. The worst-case noise exposure of noise sensitive land uses was evaluated using construction equipment assumptions provided in the *Academy of Art University Project Draft EIR*[47] applied to all 23 existing AAU sites as a whole. Noise levels that could exceed the San Francisco Noise Ordinance (Public Works Code Article 29) are identified. According to the San Francisco Noise Ordinance Section 2907, construction noise generated by any individual piece of construction equipment (except impact tools, which require noise controls) is limited to 80 dBA at a distance of 100 feet. In addition, Noise Ordinance Section 2908 prohibits construction noise that exceeds 5 dBA over the ambient noise level at the nearest property line between 8:00 p.m. and 7:00 a.m.

---

46 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015.
47 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015.

For the purpose of this analysis, ground-borne vibration effects associated with human annoyance are assumed to have been noticeable and important if vibration caused by construction activities related to any of the AAU sites exceeded 80 vibration decibels (VdB) for residential uses and 83 VdB for institutional uses, which are the vibration levels that are considered by the Federal Transit Administration (FTA) to be acceptable only if there are an infrequent number of events per day. In terms of ground-borne vibration impacts on structures, this analysis uses the FTA's vibration damage threshold of approximately 102 VdB for reinforced buildings and 98 VdB for engineered concrete or masonry.[48]

Construction Noise Effects

The past construction at the existing 23 AAU buildings consisted of tenant improvements and life safety upgrades, such as interior construction (e.g., drywall, paint, and lighting), security system installation, fire sprinkler/fire alarm upgrades, elevator modernization, and exterior signage. For some buildings, tenant improvements might have included seismic retrofit work, replacement of windows and lighting, and addition of awnings and exterior lighting. For seismic retrofitting projects, structural improvements would have been added to a building to ensure the safety and security of the building's occupants and the property itself. Depending on the seismic upgrade that the structural engineer may have recommended, the construction equipment used may have varied from scissor lifts to scaffolds, ladders, welding equipment (if required), debris boxes for material disposal, and hand tools for the different trades. At 2151 Van Ness Avenue (ES-6) there was limited ground disturbance for installation of footings under each of the towers. No excavation has occurred at other existing AAU sites. Tenant improvement work would have generally occurred when AAU was on winter or summer break.

Tenant improvement work would have primarily occurred within the interior of existing buildings, would have been of short duration, and would not be expected to have required heavy-duty equipment such as excavators, concrete mixers, and heavy trucks, except at 2151 Van Ness Avenue, where a concrete truck provided the concrete for each of the two new footings. Further, noise related to the tenant improvements would have been shielded from off-site receptors because the work was conducted in the interior of existing buildings. Outdoor work, including potential limited excavation for seismic retrofits, would have generated more noise than the interior work, but over short periods of time. Table 19, Typical Noise Levels from Construction Equipment, shows typical noise levels produced by various types of construction equipment.

[48] Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Table 19. Typical Noise Levels from Construction Equipment

Construction Equipment Noise Level	dBA, Leq at 50 Feet	dBA, Leq at 100 Feet
Paver	89	83
Dump Truck	88	82
Jack Hammer	88	82
Scraper	88	82
Dozer	87	81
Concrete Mixer (Truck)	85	79
Backhoe	85	79
Portable Air Compressor	81	75
Generator	76	70

Note: Leq = equivalent continuous noise level.

Source: FTA, Transit Noise and Vibration Impact Assessment, May 2006.

Based on Table 19, which shows the noise levels from construction equipment that is identified in the *Academy of Art University Project Draft EIR* as expected to be used in typical tenant improvements and that would have likely also been used at the existing 23 AAU sites, the construction noise levels at these sites would have been less than 80 dBA at 50 feet. According to the San Francisco Noise Ordinance Section 2907, construction noise generated by any individual piece of construction equipment (except impact tools, which require noise controls) is limited to 80 dBA at a distance of 100 feet. In addition, Noise Ordinance Section 2908 prohibits construction noise that exceeds 5 dBA over the ambient noise level at the nearest property line between 8:00 p.m. and 7:00 a.m. Past tenant improvements at the existing 23 AAU sites would not have required the use of pile driving or other construction equipment that would have resulted in ground-borne vibration or noise levels above the requirements of the Noise Ordinance. Because past tenant improvement construction activities at the existing 23 AAU sites would have been of a short duration and were required to comply with the noise limits and hours mandated by the City's Noise Ordinance, they would not have resulted in the exposure of persons to or generation of noise in excess of City standards, or result in substantial temporary or periodic increases in ambient noise levels. Although noticeable to nearby neighbors, construction noise would not have resulted in substantial adverse effects on nearby sensitive receptors.

Construction Vibration Effects

Past tenant improvements at the existing 23 AAU sites did not involve the demolition of existing buildings or development of new buildings. The occupancy and change of use of 23 existing AAU buildings would have involved tenant improvements such as interior construction, security system installation, fire sprinkler/fire alarm upgrades, elevator modernization, and exterior signage. For some of the existing AAU buildings, tenant improvements have included seismic retrofit work, replacement of windows and lighting, and addition of awnings and exterior lighting. Past tenant improvements would not have required heavy-duty equipment such as excavators, concrete mixers, and heavy trucks. The highest source of vibration during the tenant improvement activities would have been generated by jackhammers at a few locations where tenant improvements occurred at

AAU existing sites. According the FTA Transit Noise and Vibration Impact Assessment, jackhammers can generate vibrations of approximately 79 VdB from a distance of 25 feet.[49] The closest residential receptor to these past tenant improvements would have been approximately 100 feet away. At this distance, these receptors would have been exposed to a vibration level of approximately 61 VdB, which is well below the FTA threshold of 80 VdB for residential uses. Since the past tenant improvements/seismic retrofit activities did not involve the use of heavy equipment or impact pile-drivers, vibration-related impacts would not have exceeded 80 VdB. This effect, although potentially noticeable to some nearby observers, would not have resulted in important structural damage or health effects.

Operational Noise Analysis Methodology

Analysis of Existing Noise Effects on AAU Sites and Occupants as On-site Receptors

Since the 23 existing AAU sites have been operational for a varying number of years, it would be difficult to deduce what the existing ambient noise levels were for each building prior to AAU occupation. To assess existing traffic noise impacts at each of the existing sites, the 2008 San Francisco Transportation Noise Map[50] was used to approximate the existing traffic noise exposure at each of the existing 23 AAU sites, which are compared to the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise.[51] Considering that there has been some level of growth in the area since 2008 that has contributed to an increase in traffic levels, use of the existing traffic noise levels presented in the 2008 San Francisco Transportation Noise Map offers a conservative estimate for actual existing conditions in the study area for the purpose of comparing non-AAU related traffic noise to the AAU-related traffic noise. A traffic noise effect is assumed to have occurred where existing traffic noise levels were found to exceed the Land Use Compatibility Guidelines for their respective land use.

Analysis of Existing AAU Rooftop Mechanical Equipment Noise Effects on Off-site Receptors

The rooftop mechanical equipment at the AAU sites consists of heating, ventilating, and air conditioning (HVAC) units and exhaust fans, used to maintain comfortable temperatures within the existing AAU buildings. Rooftop mechanical equipment was either installed or replaced by AAU after occupation at the following sites: ES-1, 2340 Stockton Street; ES-2, 2295 Taylor Street; ES-8, 1849 Van Ness Avenue; ES-10, 950 Van Ness Avenue; ES-20, 620 Sutter Street; ES-25, 520 Powell Street; ES-26, 410 Bush Street;. ES-27, 77 New Montgomery Street; ES-28, 180 New Montgomery Street; ES-30, 58-60 Federal Street; and ES-34, 466 Townsend Street. The locations of the rooftop HVAC units were provided by AAU and are presented in Appendix NO. Of these HVAC units, the ones installed after AAU occupation or modified by AAU were assessed because HVAC's installed before AAU occupation are considered part of the background noise levels in the surroundings. For this analysis, equipment specifications provided by AAU indicate that each

---

[49] Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

[50] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf.

[51] San Francisco Planning Department, *San Francisco General Plan*, Environmental Protection Element, adopted on June 27, 1996.

HVAC unit can generate noise levels of approximately 51 dBA L_{eq} at a reference distance of 100 feet from the operating units during maximum heating or air conditioning operations.[52]

Noise generated by the rooftop HVAC units was compared to noise generation limits established in the City's Noise Ordinance (Section 2909). According to the City's noise ordinance (Section 2909), noise from a fixed source (e.g., rooftop mechanical equipment) may not exceed 45 dBA L_{eq} (between the hours of 10:00 p.m. to 7:00 a.m.) or 55 dBA L_{eq} (between the hours of 7:00 a.m. to 10:00 p.m.) measured inside any sleeping or living room in any dwelling unit. Older structures with windows closed can have an exterior to interior noise reduction between 15 to 20 dB. Therefore, the nearest residential home exposed to an exterior noise level of 70 dBA L_{eq} during the daytime hours and 60 dBA L_{eq} during the nighttime hours could result in interior noise levels exceeding the City's daytime and nighttime noise standards, respectively.

Analysis of Existing AAU Vehicle Trip Generation Noise Effects on Off-site Receptors

Operational traffic noise at each of the existing sites was analyzed based on non-shuttle vehicle usage associated with each site based on daily trip generation provided by CHS Consulting Group.[53] Traffic noise modeling was completed using the Federal Transit Administration (FTA) methodology to evaluate traffic noise impacts in Transit Noise Impact and Vibration Assessment.[54] Traffic noise modeling procedures involved calculating existing vehicular noise levels at the existing 23 AAU sites using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and existing traffic volumes generated by the AAU existing sites uses.

The incremental noise impact criteria included in the FTA Transit Noise Impact and Vibration Assessment, as presented in Table 20, Federal Transit Administration Impact Criteria – Noise Sensitive Uses, are based on US Environmental Protection Agency (USEPA) Levels and subsequent studies of annoyance in communities affected by transportation noise and contained in the FTA Guidelines. The USEPA's definition of minimal noise impact is a 5 dBA change from an established protective ambient level; the FTA extended the USEPA's incremental impact criteria to higher baseline ambient levels. As baseline ambient levels increase, smaller and smaller increments are allowed to limit increases in community annoyance (e.g., in residential areas with a baseline ambient noise level of 50 dBA L_{dn}, a 5-dBA increase in noise levels would be acceptable, whereas at 70 dBA L_{dn}, only a 1-dBA increase would be allowed). These thresholds are used to determine whether increases in traffic-related noise levels have resulted in substantial community annoyance from non-shuttle vehicle traffic generated by AAU land uses. Traffic noise impacts related to the operation of AAU shuttles are discussed below on pp. 3-52 to 3-54.

52 Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.
53 CHS Consulting Group, AAU ESTM Transportation Section, January 2016.
54 Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Table 20. Federal Transit Administration Impact Criteria – Noise Sensitive Uses

Residential and Buildings Where People Normally Sleep[1]		Institutional Land Uses with Primarily Daytime and Evening Uses[2]	
Existing L_{dn} (dBA)	Allowable Noise Increment (dBA)	Existing Peak Hour L_{eq} (dBA)	Allowable Noise Increment (dBA)
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Notes:

[1] This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

[2] This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.

Ldn = day-night average sound level.

Source: Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006.

Combined Operational Noise Effects

Traffic generated by the existing AAU sites does not result in high enough noise levels to result in a substantial noise increase along local streets. As discussed in Chapter 4 under the individual site assessments, the existing mapped traffic noise levels along local streets combined with traffic noise levels generated by the existing AAU sites elevate existing non-AAU traffic noise levels by less than 1 A-weighted decibel (dBA). This increase in traffic noise is well below the average human being's ability to perceive a slight change in noise, which typically occurs with increases of 3 dBA or more. In addition, noise generated by shuttle bus stops does not generate high enough noise levels to result in a noticeable change in noise. Therefore, individual AAU existing sites would not contribute considerably to traffic noise generated by foreseeable future development in its vicinity. The AAU existing sites are dispersed throughout the eastern side of the City. Traffic generated by the existing sites would be minimal; therefore, any increase in traffic-generated noise from all of the existing AAU sites would not combine to produce a noticeable change in ambient noise levels above existing conditions. Few vehicle trips are generated by AAU's residential uses; therefore, the cluster of AAU buildings in the Lower Nob Hill area on Sutter, Bush, and Pine streets does not combine to result in large amounts of traffic that would affect ambient noise levels.

None of the existing AAU sites are expected to be demolished or substantially remodeled in the future. Consequently, the existing AAU sites do not require the use of heavy-duty equipment such as excavators, concrete mixers, or heavy trucks that could expose nearby sensitive receptors to elevated construction noise or vibration. Noise levels generated by student activity, fixed noise sources, and increased shuttle bus operations are compatible with a typical urban environment, and do not contribute to noise levels in excess of limits established by the City and County of San Francisco. Noise generated by rooftop mechanical equipment that was either installed or altered by AAU did not exceed the noise level standards established in the City's noise ordinance. Furthermore, rooftop mechanical equipment installed or altered by AAU would have had to demonstrate compliance with the City's noise ordinance for mixed stationary sources (Section 2909). Therefore, the combined existing sites do not have a substantial effect on the noise environment.

Shuttle Noise

Shuttle noise effects were evaluated for the entirety of the existing shuttle system based on 2010 shuttle activity. Information for the existing shuttle system was taken from the information regarding existing shuttle noise in the *Academy of Art University Project Draft EIR* prepared for the AAU expansion activities.[55]

The idling of shuttle buses when picking up or dropping off AAU students, faculty, and staff generates short-term noise at all shuttle stops serving the AAU existing facilities. In order to determine if the increase in shuttle bus activity during drop-off and pick-up times results in a substantial increase in ambient noise levels at both AAU and non-AAU residences and institutions, the Draft EIR[56] reported measured noise levels from an existing AAU shuttle stop in the parking lot at 2225 Jerrold Avenue. The noise meter was located approximately 10 feet from the vehicle and was positioned five feet above the ground. The results of the noise measurement survey showed that the loudest noise levels associated with any of the shuttle buses are produced by the backup beepers, with noise levels up to 87 dBA. The Draft EIR further concluded that the backup beepers are required by Cal-OSHA to be at least 5 dBA above ambient noise level and are highly directional in nature. Backup beepers are, of course, intended to warn persons who are behind the vehicle when it is backing up. The Draft EIR concluded that due to the highly urbanized environment, shuttle bus idling noise would likely have been masked by typical traffic noise. The shuttle bus noise survey reported in the Draft EIR is representative of what would be expected at the shuttle bus stops serving the existing AAU sites. Therefore, based on the noise survey and analysis reported in the Draft EIR, the noise generated by shuttle buses serving the existing AAU sites is expected to be masked by the surrounding traffic noise and does not cause a substantial increase in ambient noise levels.

3.4.8. Air Quality

Construction Air Emissions

Methodology

Upon occupancy of the 23 existing buildings, AAU implemented tenant improvements. The types of construction activities that occurred at these sites were confirmed through site visits to 29 of the 34 existing AAU sites as well as a review of building permits. Construction activities have

[55] San Francisco Planning Department, *Academy of Art University Project Draft EIR,* February 2015, Section 4.7.
[56] San Francisco Planning Department, *Academy of Art University Project Draft EIR,* February 2015, p. 4.7-34.

primarily consisted of tenant improvements and life safety upgrades such as installation of drywall for partitions, painting, relocation of (or addition of) light fixtures, installation of new fire sprinkler systems and new fire alarms or upgrades, some seismic retrofit work, and elevator modernizations. This work typically occurred when AAU was on winter or summer break.

The duration of construction activity occurred between AAU breaks, which lasted for 5 weeks between fall and spring semesters, 5 weeks between spring and summer semesters, and approximately 4 weeks between summer and fall semesters.[57] An analysis of emissions for a worst-case construction scenario was completed in the AAU Air Quality Technical Report (AQTR)[58] in support of the *Academy of Art University Project Draft EIR* for future AAU expansion. The result of this analysis was used to assess worst-case construction emissions for all existing 23 AAU sites, which were compared to the BAAQMD construction significance thresholds.[59] Because construction activities do not occur over many years, the thresholds for construction apply to daily emissions; annual construction-related emissions are not calculated.

Construction Air Emissions Results

The equipment typically used to accommodate AAU changes of use (that do not require seismic retrofitting), included scaffolding, ladders or scissor lifts, and, in some cases, other equipment for specialized trades, such as pipe cutters, pipe threaders, and hand cutters for fire sprinkler work. Construction vehicles included light trucks and delivery vehicles from vendors; however, no motorized excavation equipment was used.[60]

For seismic retrofitting projects, structural improvements were added to a building to ensure the safety and security of the building's occupants. This process typically included strengthening of concrete tilt-up & reinforced masonry buildings, unreinforced masonry buildings, and concrete buildings that are more than two stories in height. Some common examples of seismic retrofitting project elements are adding new lateral load-resisting elements, such as concrete shear walls or structural steel braced frames; strengthening roof and floor diaphragms (including connections to supporting walls); and installing a lateral load-resisting system. For seismic retrofit projects, AAU used pneumatic equipment[61] (inside the building) and 10-cubic-yard roll-off bins.

Typical AAU construction activities do not usually require vehicles to detour; however, in the cases where detours may have been required, it would have been for a short duration when material was delivered or a scaffold was being erected.[62] Most construction required the use of three-cubic-yard trash bins. Approximately 10 percent of AAU construction projects required the pedestrian

---

57 San Francisco Planning Department, *Academy of Art University Project Draft Environmental Impact Report,* February 2015, Case File No. 2008.0586E, SCH # 201092080, p. 4.8-30 (hereinafter "Academy of Art University Project Draft EIR").

58 Atkins, *Academy of Art University Air Quality Technical Report*, October 13, 2014. A copy of this document is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2008.0586E.

59 Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2010.

60 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, p. 4.8-30.

61 Pneumatic equipment is a machine or device operated by compressed air or by a vacuum.

62 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, p. 4.8-30.

right-of-way to be closed for up to 1 week, depending on the nature of deliveries and construction activities.

Worst-case construction emissions estimates from tenant improvements at one representative existing site are summarized in Table 21, Construction Emissions from a Representative Site. Appendix AQ contains assumptions and calculations used in the modeling along with the modeling outputs. The analysis assumed that a generator, aerial lift, concrete/industrial saw, pressure washer, signal board and welding equipment were used during renovation, which represents a conservative (i.e., worst-case) level of renovation activities per year, assuming 200,000 square feet of building area. As shown in Table 21, anticipated daily emissions did not exceed BAAQMD's thresholds of significance.

Table 21. Construction Emissions from a Representative Site

Category	ROG	NOx	PM_{10}	$PM_{2.5}$
Daily Renovation Emissions (pounds/day)[1]	10.7	36.7	3.2	2.6
BAAQMD Significance Threshold	54	54	82	54
Exceed Significance Threshold?	No	No	No	No

Note:
[1] Assumes simultaneous renovation of two 100,000-square-foot buildings.
ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Operational Air Quality Analysis Methodology

Criteria pollutant emissions associated with the operation of the existing 23 AAU sites were estimated using the CalEEMod computer model, in accordance with BAAQMD Guidelines. Area source emissions were based on the maximum square footage of institutional space, or the number of units of residential space, as shown in Tables 1 and 2 on pp. 1-5 to 1-8.

AAU occupied buildings at different times in the past; the analyses of emissions from operation of each existing site are based on the year that AAU initially occupied the building. For analyses of emissions that occurred prior to 2010, CalEEMod only allows the user to model the years 1990, 2000, and 2005. In cases where AAU occupied the sites in years between 1990 and 2000, between 2000 and 2005, or between 2005 and 2010, the earlier operational year available within CalEEMod was used. For those AAU sites that were occupied prior to 1990, 1990 was selected within CalEEMod. This approach provides a conservative result for each site, because the transportation component of the analysis will have shown reduced emissions over time as automobiles have improved.

Office/Institutional land uses were modeled using the "Junior College" land use designation in CalEEMod as emissions can be based on building size. Although there is a "University" land use designation in CalEEMod, it only allows for emissions estimations using the number of students or number of employees, which is not applicable to AAU, given its dispersed urban setting. That is, using the "University" land use designation in CalEEMod would not accurately capture the emissions from AAU as the AAU facilities are spread out throughout the City and AAU does not have a central campus. The use of a "Junior College" land use designation in CalEEMod allows the calculation of emissions from individual parts of the AAU sites, rather than as a whole. Residential land uses were modeled as mid-rise apartments to provide a conservative estimate of area source emissions as well as to maintain consistency with the AAU AQTR and *Academy of Art University Project Draft EIR*. Although some of the buildings were occupied prior to being occupied by AAU, the analyses conservatively assume that all buildings were previously vacant and, therefore, area source emissions were based on total currently occupied square footage for each existing site building. All previous land uses also assume no associated traffic, thereby providing a conservative estimate of total existing site emissions.

Criteria pollutant sources associated with the operation of the existing sites consist of area, energy, and mobile source emissions. Area source emissions are generated by consumer product use (e.g., detergents, nail polish, and cosmetics), architectural coatings, and landscaping maintenance equipment. All area sources except generators and boilers were modeled through CalEEMod. Emissions from generators and boilers operating at these buildings were estimated using the number of hours that this equipment is operated, the type of unit used, and emission factors applicable to these units. Generators and boilers that existed at the time AAU occupied the property were not included in the emissions estimates, as these are considered part of the background environment. Boilers or generators added as part of AAU's occupation were included in the area source emission estimates. Energy source emissions were modeled through CalEEMod, which consist of indirect criteria pollutant emissions emitted through the combustion of natural gas to generate heat and electricity on-site. Mobile emissions associated with non-shuttle vehicle operations at each of the 23 existing AAU sites were calculated in CalEEMod, based on the average daily vehicular trip rates identified in the site-specific transportation analyses for the existing sites.[63]

Shuttle emissions cannot be allocated to any individual building, as the shuttle system serves most of the AAU existing sites. Therefore, air pollutant emissions from the shuttle system are discussed as a whole below in the Shuttle Air Quality subsection, pp. 3-59 to 3-60.

Health Risks

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). To identify areas of San Francisco adversely affected by TACs, San Francisco collaborated with the BAAQMD to inventory and assess air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the "Air Pollutant Exposure Zone,"[64] were identified based on four health-protective criteria: (1) excess cancer risk from the contribution of emissions from all modeled sources greater than 100 per one million population, (2) cumulative PM2.5 concentrations greater than 10 micrograms per cubic meter (μg/m3), (3) proximity to freeways; and (4) health vulnerable locations where standards were changed to excess

[63] CHS Consulting Group, AAU ESTM Transportation Section Draft, January 2016.

[64] San Francisco Department of Public Health, *Air Pollutant Exposure Zone Map*, April 10, 2014. Accessed November 2015.

cancer risk greater than 90 per one million population and/or PM2.5 concentrations in excess of 9 $\mu g/m^3$.

Land use projects within the Air Pollutant Exposure Zone require special consideration to determine whether the project's activities will expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality. San Francisco has identified best management practices to be implemented for projects that either will site new sensitive land uses or that will result in new sources of TACs within Air Pollutant Exposure Zone. These best management practices are intended to reduce exposure of sensitive land uses to sources of air pollution. Best management practices may include measures such as orientation of air intakes and higher rated filtration systems. For buildings located within the Air Pollutant Exposure Zone, compliance with the best management practices will be recommended to reduce health risks to sensitive receptors and from sources of TACs, if risks are identified.

On-site emergency backup generators and boilers represent the on-site emissions sources at the existing AAU sites that could generate TAC emissions. These emissions can affect the health of both on- and off-site sensitive receptors. Land uses considered sensitive to poor air quality include residences, schools, day-care centers, hospitals, nursing homes, and convalescent homes. These land uses are considered most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than for other land uses.

Exposure assessment guidance typically assumes that residents will be exposed to air pollution 24 hours per day, 350 days per year, for 70 years. Therefore, assessments of residential exposure typically result in the greatest adverse health outcomes of all population groups. From a health risk standpoint, anyone over 16 is considered within the adult population and, as such, a university would not fall into the "school" category. However, the residential portions of a university are considered sensitive receptors because they are living quarters for students. Therefore, all residential land uses within AAU's existing sites are evaluated as sensitive receptors.

Existing AAU buildings that currently operate a backup generator or boiler located within the City's Air Pollutant Exposure Zone Map are considered contributors to health risks. The 23 existing AAU sites were compared to the Air Pollutant Exposure Zones map. Three existing institutional AAU sites were found to be within the Air Pollution Exposure Zone. The three existing AAU institutional sites within Air Pollution Exposure Zones are ES-1 (2340 Stockton Street), ES-27 (77 New Montgomery Street) and ES-28 (180 New Montgomery Street). None of these existing sites have sensitive land uses. Therefore, the existing operations of these three sites have not located sensitive receptors within Air Pollutant Exposure Zones and have not resulted in any impacts to on-site sensitive receptors.

These three existing AAU sites themselves are not sensitive uses, as they are institutional and do not include AAU residential uses. However, operation of stationary sources such as boiler or backup generators within the Air Pollutant Exposure Zone would have the potential to increase health risks to nearby sensitive receptors. There are no emergency backup generators or boilers on these AAU sites located within any of the zones. Therefore, the operation of stationary sources at the existing 23 AAU sites has not increased health risks to nearby sensitive receptors. Given the above, health risk effects in regards to being located within Air Pollutant Exposure Zones are not addressed under the individual site assessments in Chapter 4, Environmental Analysis of Individual Sites.

Combined Air Quality Effects

The combined operation of all 23 AAU sites would increase criteria air pollutant and precursor emissions, including reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}). Table 22, Combined Emissions at 23 Existing Sites, summarizes the combined daily and annual operational emissions of criteria pollutants, including those from the shuttle system, and compares them to the Bay Area Air Quality Management District (BAAQMD) significance thresholds. As shown in Table 22, the combined emissions of ROG and NOx would exceed the BAAQMD's daily and annual thresholds. This result is primarily because emissions were modeled using the year in which the AAU sites were originally occupied, which for many sites was in the early/late 1990s when vehicles generated much higher levels of emissions. Therefore, this is a conservative approach to combining emissions from the 23 AAU existing sites.

Table 22. Combined Emissions at 23 Existing AAU Sites

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	44.62	14.91	2.01	1.99	7.83	2.61	0.35	0.59
Energy	1.03	7.81	0.60	0.60	0.16	1.43	0.11	0.11
Mobile	120.8	171.39	56.04	12.25	21.83	31.67	5.14	1.72
Total Emissions	166.45	194.11	58.65	14.84	29.82	35.71	5.6	2.42
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	Yes	Yes	No	No	Yes	Yes	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

To estimate existing operational emissions, an operational baseline year of 2010 and the existing year 2016 were used to calculate emissions from the 23 existing AAU sites. Table 23, Cumulative Year 2010 Emissions at 23 Existing AAU Sites, and Table 24, Cumulative Year 2016 Emissions at 23 Existing AAU Sites, summarize the combined daily and annual operational emissions of criteria pollutants for 2010 and 2016, respectively, including emissions from the shuttle system, and compare them to the BAAQMD significance thresholds.[65] As shown in Table 23, the cumulative year 2010 emissions of ROG and NOx exceed the BAAQMD's daily and annual thresholds. However, as shown in Table 24, the cumulative year 2016 emissions for ROG, $PM_{10,}$ and $PM_{2.5}$ are below the BAAQMD's

[65] Emissions from the shuttle system have not been updated to 2016 information either related to the revisions to the routing and frequency instituted by AAU or related to any newer, lower emitting vehicles that may have been included in the fleet. Therefore, the 2016 results in Table 24 are conservative.

daily and annual thresholds; while the NOx emissions exceed the BAAQMD's annual threshold, they no longer exceed the daily threshold. This reduction in criteria pollutant emissions between 2010 and 2016 is the result of the cleaner on-road vehicle fleet, landscaping equipment, consumer products, and on-site energy generation in 2016. Although emissions of criteria pollutants during baseline year 2010 and 2016 would exceed the BAAQMD thresholds, operational emissions would steadily decrease over time to below the thresholds. In addition, the BAAQMD threshold is intended to be applied to individual development projects with a single build-out year and not for multiple projects with different operational years. The thresholds are not intended to address many distinct projects together on a cumulative basis.

Table 23. Cumulative Year 2010 Emissions at 23 Existing AAU Sites

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$
Area	43.67	14.3	1.92	3.23	7.97	2.61	0.35	0.59
Energy	0.88	7.73	0.6	0.6	0.16	1.41	0.11	0.11
Mobile	25.24	61.12	53.42	8.77	4.58	10.94	7.99	1.49
Total Emissions	69.79	83.15	55.94	12.6	12.71	14.96	8.45	2.19
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	Yes	Yes	No	No	Yes	Yes	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

Table 24. Cumulative Year 2016 Emissions at 23 Existing AAU Sites

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$
Area	38.19	14.25	1.92	3.23	6.97	2.6	0.35	0.59
Energy	0.88	7.73	0.6	0.6	0.16	1.41	0.11	0.11
Mobile	15.16	36.3	52.87	8.28	2.74	6.41	7.89	1.40
Total Emissions	54.23	58.28	55.39	12.11	9.87	10.42	8.35	2.10
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	Yes	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

Shuttle Air Quality

Emissions from the shuttle trips cannot be allocated to specific buildings, as the various routes stop at several buildings, several times a day. Therefore, emissions from the shuttles were not addressed for each individual site; however, overall shuttle emissions from the existing 34 AAU sites were addressed in a discussion of total existing site emissions and the evaluation of the total combined air quality impacts from existing AAU activity. The analysis of the current shuttle usage was based on the transportation impact analysis related to shuttle trips for the existing 34 AAU sites.[66] Shuttle bus emissions were calculated based on the existing number of daily buses for year 2010 and the total vehicle miles traveled.

Emission factors for criteria pollutant emissions from the shuttle buses are based on the year, classification, and fuel type of the existing (2010) AAU bus fleet. AAU classifies its buses as “other school buses;” therefore, the EMFAC2011[67] classifications used for determining emission factors are “other buses” and “school buses.”

Mobile source emissions from the AAU shuttle bus system were evaluated in the AAU Air Quality Technical Report (AAU AQTR) prepared for the *Academy of Art University Project Draft EIR*. The AAU AQTR used the level of shuttle activity for 2010 as the basis for the analysis because there were more buses and bus trips at that time than in 2013, which was the analysis year for the Draft EIR. This resulted in a conservative risk analysis for the AAU AQTR and an accurate health risk for the existing sites.

Long-term regional mobile source emissions of criteria air pollutants and precursors associated with the use of the AAU shuttle vehicles at AAU’s existing sites were modeled using emission factors obtained from the EMFAC2011[68] based on the age and fuel type of the buses in the existing (2010) AAU shuttle fleet. Results in Table 25, Study Area Shuttle Emissions by Bus Stop, show the estimated long-term operational mobile source emissions from the use of AAU shuttles would be well below BAAQMD’s significance thresholds for ROG, NOx, $PM_{10,}$ and $PM_{2.5}$.

Since 2010, AAU has updated its shuttle routes and reduced the number of trips, focusing on peak use periods. Therefore, the results of analyzing the 2010 shuttle system present a conservative estimate of emissions.

A Heath Risk Assessment (HRA) was prepared as part of the AAU Air Quality Technical Report (AQTR)[69] for the *Academy of Art University Project Draft EIR*. The HRA analysis accounts for all shuttle service and shows that the total cancer risks and PM2.5 concentrations for all routes and segments would not contribute significantly to an existing Air Pollutant Exposure Zone. The AAU AQTR used the level of shuttle activity for 2010 as the basis for the analysis because there were

66 CHS Consulting Group, AAU ESTM Transportation Section Draft, January 2016.

67 While EMFAC2014 is newly available, the use of EMFAC2011 emission factors provides consistency with the AQTR analysis in the EIR and a more conservative emissions analysis because the newer emission factors are lower than those in EMFAC2011.

68 While EMFAC2014 is newly available, the use of EMFAC2011 emission factors provides consistency with the AQTR analysis for the *Academy of Art University Project Draft EIR* as well as resulting in a more conservative analysis of emissions. Therefore, the analysis continues to use EMFAC2011 emission factors for this report.

69 Atkins, Academy of Art University Air Quality Technical Report, October 13, 2014.

more buses and bus trips at that time than in 2013 when the AQTR analysis was carried out. Therefore, the existing 2010 AAU shuttle bus system serving the 34 existing AAU sites has not increased health risks to nearby sensitive receptors.

Table 25. Study Area Shuttle Emissions by Bus Stop

Bus Stop Address	Daily Emissions (pounds/day)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
620 Sutter Street	0.11	0.67	4.58	0.30
860 Sutter Street	0.11	0.67	4.58	0.30
701 Chestnut Street	0.02	0.09	0.61	0.04
2300 Stockton Street	0.02	0.09	0.61	0.04
2209 Van Ness Avenue	0.02	0.12	0.82	0.05
1849 Washington Street	0.02	0.12	0.82	0.05
77 New Montgomery Street	0.10	0.61	4.20	0.28
60 Federal Street	0.09	0.56	3.85	0.25
601 Brannan Street	0.09	0.56	3.85	0.25
466 Townsend Street	0.09	0.56	3.85	0.25
491 Post Street	0.05	0.33	2.26	0.15
1727 Lombard Street	0.01	0.05	0.31	0.02
1916 Octavia Street	0.01	0.04	0.25	0.02
410 Bush Street	0.01	0.05	0.36	0.02
Total Emissions	0.75	4.52	30.95	2.03
Threshold	54	54	82	54
Significant	No	No	No	No

Note:

[1] Emissions were estimated using emission factors from EMFAC2011 based on the age and fuel type of the buses in the existing (2010) fleet. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2015.

3.4.9. Greenhouse Gas Emissions

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting greenhouse gas (GHG) emissions during their lifecycle. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers; energy required to pump, treat, and convey water; and emissions associated with waste removal, disposal, and landfill operations.

Regulations, as outlined in San Francisco's *Strategies to Address Greenhouse Gas Emissions*, have proven effective, because San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels. The AAU existing sites were either determined to be consistent with San Francisco's GHG reduction strategy, would require compliance during the building permit review process, or a recommended Condition of Approval is suggested, as presented in Chapter 4 under the individual site assessments. With the implementation of the recommended Conditions of Approval and conformity with the City's GHG Compliance Checklist, the AAU existing sites' GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations. Therefore, combined effects of the AAU existing sites would not make a substantial contribution to GHG emissions if the recommended Conditions of Approval are implemented.

3.4.10. Wind and Shadow

Upon occupation of existing buildings, AAU made typical tenant improvements and life safety upgrades, such as interior construction (e.g., drywall, paint, and lighting), security system installation, fire sprinkler/fire alarm upgrades, elevator modernization, and exterior signage. For some buildings, tenant improvements have included seismic retrofit work, replacement of windows and lighting, and addition of awnings, fences, and/or exterior lighting. Improvements at the AAU existing sites have not involved any new development or additions to structures that have changed the height or bulk of existing structures; therefore, the wind environment has not changed. Buildings located in clusters near one another have not combined to affect pedestrian-level winds, because there have been no notable changes to building form or massing.

Similarly, occupation and change in use of the AAU existing sites have not altered shadows and are not subject to the requirements of Planning Code Section 295 because the AAU existing sites have not been altered in a manner that substantially alters the shadow resulting from existing buildings. Therefore, no combined effect related to shadow has occurred at nearby recreational facilities or other public areas.

Because structures on AAU's existing sites have not been substantially altered in form or massing and therefore have not resulted in new shadows on public open space or new hazardous wind conditions in pedestrian use areas, the changes in use from AAU occupation of these sites could not have contributed to any existing or known future development that itself could result in a cumulative contribution to any new shadows or hazardous wind conditions.

3.4.11. Recreation

San Francisco has approximately 5,890 acres of open space under the jurisdiction of several local, state, and federal agencies.[70] Golden Gate National Recreation Area comprises 1,642 acres of federally owned park lands, including the Presidio of San Francisco (Presidio), Ocean Beach, Fort Funston, Fort Mason, Lands End, Sutro Heights Park, and China Beach. State-owned park lands,

---

70 San Francisco Planning Department, Recreation and Open Space Element of the *San Francisco General Plan* (hereinafter "ROSE"), pp. 2-3. Available online at http://www.sf-planning.org/ftp/General_Plan/index.htm. Accessed on September 15, 2015.

approximately 255 acres in total, include Candlestick Point State Recreation Area and the University of California San Francisco (UCSF) Mount Sutro Open Space.[71]

The San Francisco Recreation and Park Department (RPD) owns approximately 3,433 acres of permanently dedicated public open space and maintains more than 220 properties throughout the City. RPD manages 1,100 acres of natural lands and trails; 25 large, full-complex recreation centers; nine swimming pools; six golf courses; and hundreds of tennis courts, baseball diamonds, athletic fields, and basketball courts. RPD also manages many of the City's most famous locations, such as the Palace of Fine Arts, Golden Gate Park, and Coit Tower. Three large open spaces encompass more than one-half of the total City-owned open space: Golden Gate Park (1,000 acres), the Lake Merced Community Complex (600 acres), and John McLaren Park (300 acres). These larger areas function as City-serving spaces because they attract residents from the entire City, as do smaller areas with unique attributes such as water features or hilltop vista points.

The City's open space network also includes 560 acres of open space in the form of community gardens,[72] living streets, piers and wharves, university campuses, pilot program schoolyards, and parks or open spaces under the jurisdiction of the Port, the San Francisco Public Utilities Commission (SFPUC), the Department of Public Works, and the Office of Community Investment and Infrastructure among others.

An open space is considered accessible to the majority of users, including families with small children, if it is within a one-quarter mile, or 5-minute, walking distance (see Figure 4, Recreation and Park Facilities within 0.25 Mile of Existing Sites).[73] However, users may visit more distant facilities, especially if their neighborhood lacks recreation resources or if they are seeking particular amenities such as sports fields or pools. For adult users such as faculty and university students, one-half mile is accepted as a comfortable walking distance most people are willing travel for recreation. As noted above, the large, City-owned open spaces like Golden Gate Park serve all City residents as well as visitors to the City.

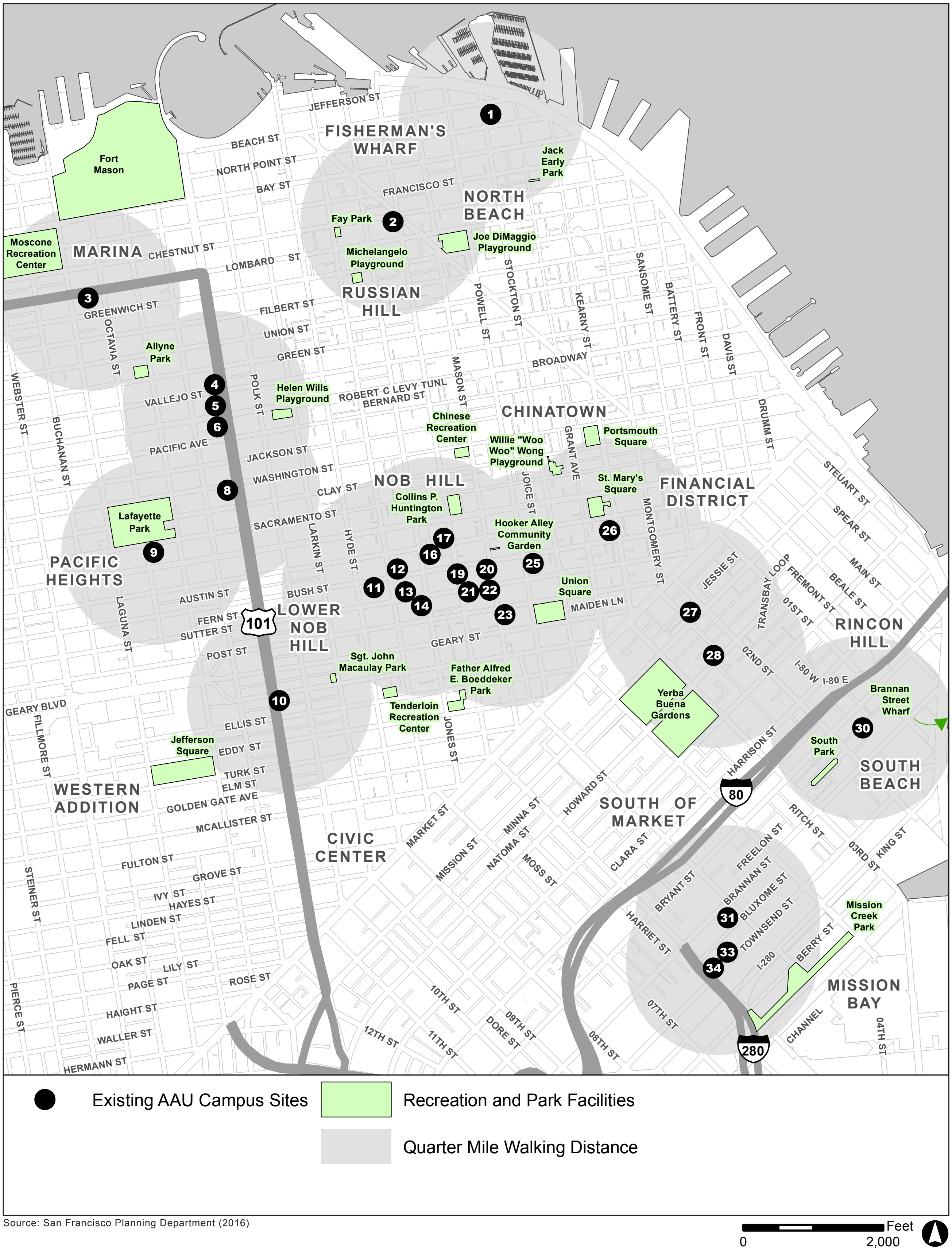
In addition to the public park system, AAU students, faculty, and staff have access to AAU private recreational facilities. 1069 Pine Street (ES-16) is a one-story, 1,875-square-foot building with one main room dedicated to an indoor gymnasium. 620 Sutter Street (ES-20), which consists of student housing, also has an indoor gymnasium and pool. 601 Brannan Street (ES-31)—principally dedicated to classrooms, a library, and labs/studios—also has a basketball court and batting cages in the open area to the rear of the building. Several existing sites, including 1849 Van Ness Avenue (ES-8), 1055 Pine Street (ES-17), 180 New Montgomery Street (ES-28), 58–60 Federal Street (ES-30), and 466 Townsend Street (ES-34), have other indoor casual resting areas in the form of lounges and café spaces. These facilities may be accessed by walking from nearby AAU sites or by taking an AAU shuttle bus.

---

[71] San Francisco Planning Department, ROSE, pp. 2-5 and San Francisco Recreation and Park Department, Recreation Assessment Report, August 2004, p. 21. Available online at http://www.sf-planning.org/ftp/General_Plan/index.htm and http://sfrecpark.org/wp-content/uploads/SFRP_Summary_Report.pdf. Accessed on September 15, 2015.

[72] Most community gardens are managed by the RPD's Community Gardens Program, which is part of a larger interagency Urban Agriculture Program that includes urban farms.

[73] San Francisco Planning Department, ROSE, Maps 4A through 4D, p. 21.



Source: San Francisco Planning Department (2016)

AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 4: RECREATION AND PARK FACILITIES WITHIN 0.25 MILE OF EXISTING SITES

Most of AAU's seasonal athletic programs are supplemented by facilities that AAU rents or leases through various public and private providers throughout the City. As such, the effects of the existing sites on demand for these resources are discussed in a combined manner, and not by individual effects from any particular institutional site or residential site. The non-AAU recreational facilities used for various athletic programs are further described below.

Growth associated with the AAU existing sites has resulted in an incremental increase in demand for City parks, open space, and recreational facilities. In 2016, AAU has an on-site enrollment of 8,649 students and 1,954 faculty and staff and in 2010 AAU had a population of 11,182 students and 2,291 faculty and staff. The AAU existing sites are spread across multiple neighborhoods on the eastern side of the City. AAU-generated demand for parks and recreational resources is therefore spread among several neighborhoods because students and employees visit these facilities from each existing site. There are a total of 23 existing City-owned parks and recreational resources within 0.25 mile of the AAU existing sites, as shown in Figure 4. User demand from the existing AAU sites is divided among these RPD facilities. As discussed in Chapter 4, no substantial effects on these nearby parks and recreational facilities have been identified as a result of any individual site use by AAU students, faculty, or staff. AAU students, faculty, and staff also have access to AAU's private recreational facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and student cafés and lounge areas, all of which can be reached by walking from nearby AAU sites or by taking an AAU shuttle bus.

To supplement its recreation program, the RPD provides an advanced reservation system for its athletic fields, stadiums, golf courses, and indoor facilities available to schools, leagues, clinics, and others for tournaments and special events. As described in the *Academy of Art University Project Draft EIR*, pp. 3-11 through 3-13, AAU rents and leases recreational spaces from public and private entities for most of its recreational events. RPD facilities rented by AAU include Crocker-Amazon Playground, Gene Friend Recreation Center, Kezar Pavilion and Stadium, Boxer Stadium, and the Presidio Golf Course. AAU also uses existing facilities at Stuart Hall High School and at City College of San Francisco, as well as the UCSF Bakar Fitness and Recreation Center at Mission Bay. In general, AAU rents or leases these facilities for seasonal athletic programs (e.g., baseball, basketball, soccer, track and field, volleyball, and golf) for practice and games. AAU's rental or lease period for each facility depends upon the activity's seasonal duration, as well as the hours per week needed for practice or games. Each athletic program supports between four athletes (golf) and 23 athletes (soccer). Certain activities such as baseball or basketball may require exclusive use of a field or gymnasium, whereas others such as cross-country and golf can take place in recreational facilities shared with other users.

The Recreation and Open Space Element (ROSE) of the *San Francisco General Plan* recognizes that although the City's open space is generally well distributed, some areas may lack certain amenities. In particular, the ROSE calls attention to a lack of playgrounds in certain areas, a lack of large open spaces in the eastern side of the City, limited capacity of sports fields, and high-density neighborhoods exceeding the capacity of existing local open spaces. The ROSE identifies "high needs areas" based on its analysis of walkability, population density, household income, concentration of children and youth, concentration of seniors, and projected growth. The AAU existing sites are primarily located in moderate-to-high needs area.[74]

Although the City has not established level of service standards for parks based on population density, policies, and programs currently being implemented by the City, including the Draft Citywide Vision for Open Space, the ROSE of the *San Francisco General Plan*, and park acquisitions funded through Proposition C,[75] serve the growing population near the AAU existing sites and adjacent neighborhoods. In addition, the 2008 and 2012 Clean and Safe Neighborhood Parks Bond is funding renovations of many existing recreation resources, including the completed renovations to the Chinese Recreation Center, Lafayette Park, and Joe DiMaggio Playground. Future improvements to Willie "Woo Woo" Wong Playground, South Park, and Moscone Recreation Center will be funded by the 2012 bond funds.

Given the proximity of each existing site to recreational resources, the availability of private AAU recreation opportunities, and City park revitalization efforts, the combined increase in demand due to AAU's occupation of the existing sites can be accommodated by existing parks and recreational facilities in the area without resulting in substantial degradation of such facilities or necessitating the construction of new or expanded facilities. The additional demand from AAU's existing sites is small compared to the greater population using the RPD parks and facilities, and is not focused on any particular high-need area but is distributed throughout the eastern portion of the City. For these reasons, no combined or cumulative effects on recreation have occurred.

3.4.12. Utilities and Service Systems

All 34 existing sites receive water and wastewater services from San Francisco Public Utilities Commission (SFPUC). Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology.

AAU changes in use may have caused increased demand for water, wastewater, and solid waste disposal at the existing sites. However, insofar as the 34 existing sites were occupied in the past and used the water, wastewater, and solid waste disposal facilities, it is reasonable to assume that the incremental effects from the combined changes in use have been relatively small. The SFPUC has determined that sufficient water supply is available for current and future customers in existing buildings throughout the City.[76] Additionally, AAU would install water conservation equipment at the AAU existing sites, as required by San Francisco's Residential and Commercial Conservation Ordinances.

All of the AAU existing sites are covered by impervious surfaces, and stormwater runoff has been accommodated by existing and planned wastewater facilities. Any additional demand for wastewater facilities as a result of population increases has been met by the SFPUC's Sewer

[74] San Francisco Planning Department, ROSE, Map 7, p. 24.

[75] In 2000, San Francisco voters approved Proposition C, extending the Open Space Fund that is used to finance acquisitions and capital improvements for RPD.

[76] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

Improvement Program, which has ensured the adequacy of sewage collection and treatment services to meet expected Citywide demand.[77] Therefore, AAU occupation of the 34 existing sites has not resulted in combined or cumulative effects on these City systems.

3.4.13. Public Services

Police, Fire, and Emergency Services

The AAU changes in use have resulted in new daytime and resident populations in San Francisco that are served by the San Francisco Police Department (SFPD) and the San Francisco Fire Department (SFFD). No measurable changes in police, fire, and emergency response times have resulted at police and fire stations near the AAU existing sites as a result of AAU occupation. Additionally, the incremental, dispersed growth has not resulted in the need for new or expanded police or fire facilities. See Figure 5, Fire Station, Police Station, and Library Locations, for locations of fire, police, and library locations in relation to the existing sites.

Call services for the SFPD are categorized as Priority A (life threatening), Priority B (potential for harm to life and/or property), and Priority C (crime committed with no threat to life or property). Citywide, response times at SFPD were within goals 91 percent of the time for Priority A calls, 82 percent of the time for Priority B calls, and 97 percent of the time for Priority C calls.[78]

SFPD services are augmented by AAU's Department of Campus Safety, whose staff are trained to respond to the needs of University students, faculty, and staff. The Department works collaboratively with the SFPD and California Highway Patrol.[79] The Campus Safety Patrol Team is comprised of five non-sworn uniform patrol officers patrolling all AAU sites, 24 hours per day. The officers patrol the campus in marked AAU vehicles and on foot. The Campus Host Program, part of the Department of Campus Safety, places staff in each AAU building to welcome guests, limit access to AAU buildings, and call Campus Safety or City emergency staff when necessary. All existing AAU buildings except 180 New Montgomery Street (ES-28) and 77 New Montgomery Street (ES-27) are locked 24 hours per day. The Department works collaboratively with the SFPD and California Highway Patrol.[80] Most properties have security alarms and video surveillance systems, which are monitored by Department of Campus Safety personnel. Crime on campus is relatively minimal and mainly consists of liquor and drug law violations.[81]

---

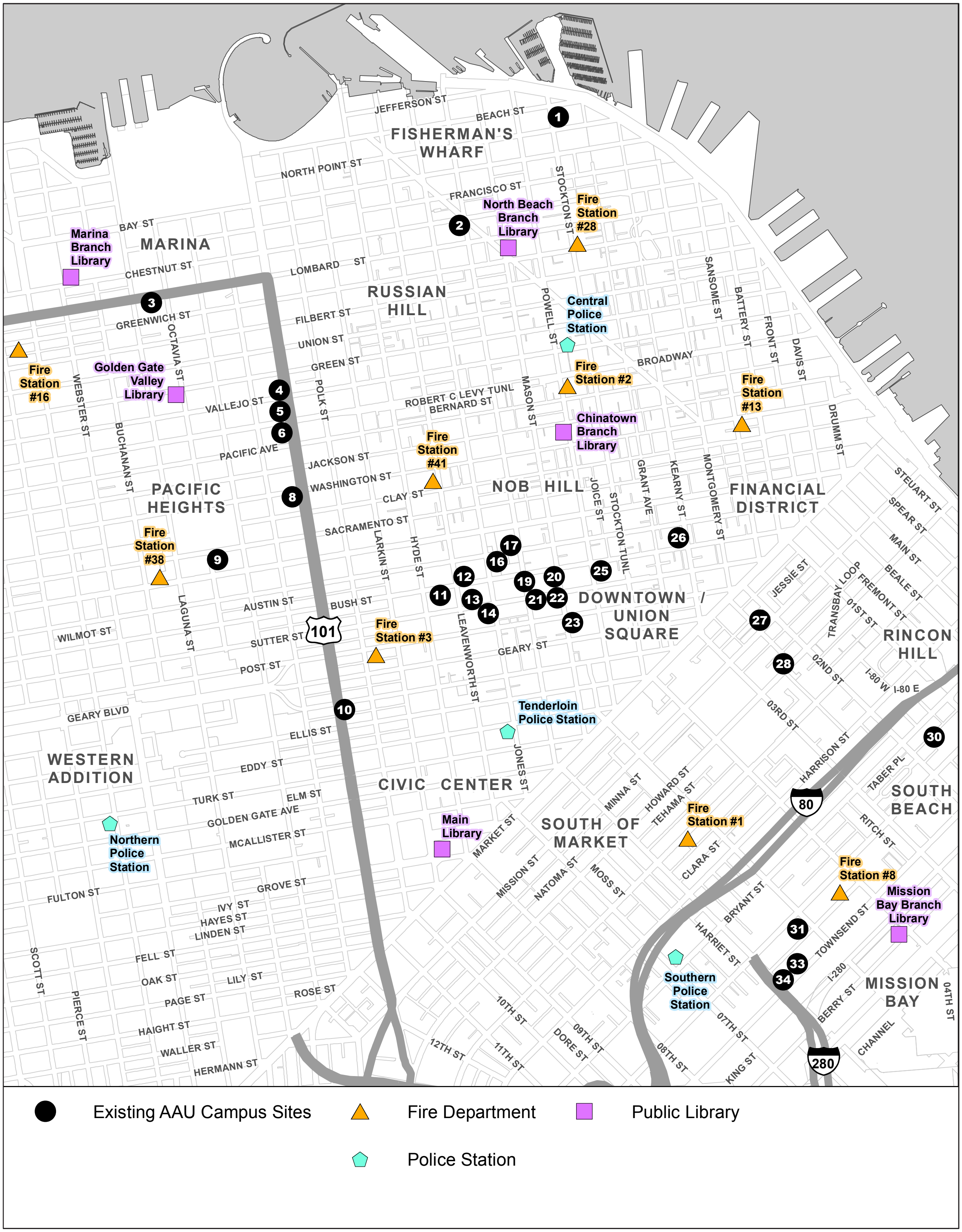
77 SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

78 San Francisco Planning Department, Academy of Art University Draft EIR, February 2015, p. 4.13-7.

79 Academy of Art University, *Annual Campus Safety and Fire Safety Report 2015-2016*, p. 11. Available at http://www.academyart.edu/content/dam/assets/pdf/Revised_security_report.pdf. Accessed on October 29, 2015.

80 Academy of Art University, *Annual Campus Safety and Fire Safety Report 2015-2016*, p. 11. Available at http://www.academyart.edu/content/dam/assets/pdf/Revised_security_report.pdf. Accessed on October 29, 2015.

81 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.13-10.



Source: San Francisco Planning Department (2016)

Feet
0
2,000

AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 5: FIRE STATION, POLICE STATION, AND LIBRARY LOCATIONS

The SFFD provides fire protection and emergency medical services for an estimated 1.5 million people, including residents, employees, and visitors.[82] Services include fire suppression, advanced emergency medical treatment and transport, heavy rescue, fire prevention and investigation, and community education and emergency preparedness training.

According to the 2012–2013 SFFD Annual Report (the most recent available data), the SFFD is made up of 1,392 uniformed and 57 civilian personnel at 44 stations Citywide. Resources for the SFFD include 41 engine companies, 19 truck companies, ambulances, two heavy rescue squads, and two fire boats, along with multiple special purpose units.

Many of the building alterations initiated by AAU have included life safety upgrades, the installation of fire alarm and sprinkler systems, and seismic upgrades, which have improved fire safety at the AAU existing sites. Compliance with the San Francisco Fire Code and the provision of AAU security may have reduced demand for SFFD and SFPD services, respectively. No substantial combined effect on police, fire, and/or emergency services has occurred from the changes in use. Similarly, the AAU demand for police and fire services has not contributed substantially to any cumulative demand from existing and reasonably foreseeable future development on the east side of the City. Major development programs such as those at Mission Bay and the Hunters Point Shipyard have included appropriate expansions of police and fire facilities, such as the recently opened buildings on Third Street in Mission Bay.

<u>Libraries</u>

The San Francisco Public Library (SFPL) is made up of 27 branch libraries; the Main Library, located in the Civic Center area; and a book mobile program. In 2014, the Citywide library collection consisted of 3,393,274 books, magazines, newspapers, government documents, and other materials. The various libraries were visited by patrons 6,730,268 times, of which 1,802,627 visits were to the Main Library.[83]

The 34 existing sites are dispersed throughout the City and the AAU occupants are expected to use their local library branch. Therefore, library demand from the 34 existing AAU sites would not be expected to result in a combined demand on any one branch. The SFPL Branch Library Improvement Program, intended to expand and improve library branches, has ensured adequate capacity for San Francisco residents.[84] Therefore library branches located near AAU's existing institutional sites have sufficient service capacity. In addition, AAU students, faculty, and staff have access to the AAU library at 180 New Montgomery Street (ES-28), which supports AAU's art and design programs and augments the SFPL services. This library holds a collection of over 50,000 volumes on the visual and technical arts. It also has a periodical collection with over 275 current subscriptions as well as access to 18 online databases, and a digital image library with over

---

[82] San Francisco Fire Department, About Us, October 2015. Available at http://www.sf-fire.org/index.aspx?page=9. Accessed on October 22, 2015.

[83] San Francisco Public Library, Statistics FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/annualreport2013_2014.pdf. Accessed on October 22, 2015.

[84] San Francisco Public Library, Branch Facilities Plan/Executive Summary, February 2016. Available online at http://sfpl.org/index.php?pg=2000043001. Accessed on February 5, 2016.

250,000 images. The AAU library is open 7 days a week and remains open on some weeknights until 10:00 p.m.[85] Similarly, demand for library facilities from individual AAU sites would not contribute to a substantial increase in cumulative demand from future development projects near any one of the sites. No substantial combined or cumulative effect on library services has occurred from the changes in use.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. The SFUSD manages 15 early education schools, 72 elementary schools (K–5), 12 middle schools (grades 6–8), 15 high schools (grades 9–12), four County and Court schools, 13 charter schools, and three continuation/alternatively configured schools with a total enrollment of more than 53,000 students.[86] Overall student enrollment between the 2008–2009 and 2013–2014 academic years has decreased slightly from 55,240 to approximately 53,270.[87] As the SFUSD is currently not experiencing high growth rates, facilities throughout the City and County are generally underused. The SFUSD maintains a property and building portfolio that has a student capacity for over 90,000 students.

The changes in use at the existing sites have resulted in new residents in San Francisco, which could result in the additional demand for schools. New faculty and staff could have school-aged children (AAU students are assumed to be unmarried and without children[88]). Using the SFUSD's student generation rate of 0.203 student per household, 171 new SFUSD students may have been generated by the changes in use and resulting increases in AAU faculty and staff.[89,90] The approximation is overestimated because it is based on total capacity for faculty and staff in all of the existing AAU buildings, whereas some new faculty/staff would use multiple AAU buildings throughout the day and were therefore double counted in the calculation. However, if 28 students had been added to the SFUSD system as a result of the AAU changes in use, this change would have been a relatively minor increase in the number of new students and would not have resulted in a substantial combined effect on the City's public schools.

---

85 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, pp. 4.13-15.

86 SFUSD, SFUSD's 2013-15 Strategic Plan. Available online at http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/SFUSD%20Strategic%20Plan.pdf. Accessed September 14, 2015.

87 SFUSD, Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at http://web.sfusd.edu/Services/research_public/rpa_student_enrollment/SFUSD%20School%20Site%20List%20and%20Summary-%20Student%20Enrollment%20[Most%20Current].pdf. Accessed September 14, 2014.

88 AAU does not have official data substantiating this assumption. Rather, based on anecdotal information and given the age of most AAU students, AAU believes that the vast majority of students are unmarried. The median age of incoming AAU students is 21 years for undergraduate students, 25 for international graduate students, and 27 years for American graduate students. In the United States, the average marrying age for women is 26.9 years and for men it is 29.8 years (http://www.pewsocialtrends.org/files/2010/11/pew-social-trends-2010-families.pdf).

89 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.13-33.

90 The number of housing units (841) multiplied by the number of students per household (0.203) equals 171 new SFUSD students.

Conclusion

Cumulative development in the City would result in intensification of land uses and a cumulative increase in the demand for fire protection, police protection, school services, and other public services. The SFFD, the SFPD, the SFUSD, and other City agencies that provide public services to the residents of the City have accounted and planned for growth, including growth in institutional uses in the City. As a result, projected future development along with increased demand from AAU's changes in use would not result in any service gap in Citywide police, fire, emergency medical services, libraries, or schools. Therefore, the AAU changes in use would not combine with future development to create a substantial cumulative effect.

3.4.14. Biological Resources

San Francisco is a highly developed urban area. Land uses within the City are characterized primarily by moderate- to high-density urban uses, including residential, commercial, institutional, and industrial. Urban development and human activities in the City limit its value for wildlife species, except in its large open spaces such as Golden Gate Park, McLaren Park, and the Presidio and 26 significant natural areas designated in the *San Francisco General Plan*.[91]

The AAU existing sites are highly urbanized and do not provide habitat for any rare, endangered, or protected wildlife or plant species. There are no known candidate, sensitive, or special-status species located at or near any of the AAU existing sites, because many occurrences are confined to the Presidio or San Francisco Bay, or are located on lands under the control of the RPD.[92] The AAU existing sites do not contain wetlands or wildlife habitat; nor are there any adopted habitat conservation plans, natural community conservation plans, or other approved local, state, or regional habitat conservation plans applicable to the sites.

Tenant improvements such as interior construction, security system installation, fire sprinkler/fire alarm upgrades, seismic retrofit work, and installation of exterior signage and lighting at an existing site are types of activities that would not be expected to result in any impacts on biological resources that may have been or may be present in the vicinity. As such, even in the event that sensitive or special-status species were present at any of the AAU existing sites, occupancy and improvement activities would not have adversely affected these species through direct disturbance or habitat modification. Therefore, in combination, the existing AAU sites have not resulted in effects on important biological resources.

Although most of the AAU existing sites do contain a number of ornamental/street trees that could provide nesting habitat for migratory birds, the change in use of the AAU existing sites has not resulted in exterior renovations that required the removal of these trees, because the exterior alterations have generally been limited to seismic improvements and installation or replacement of signage, awnings, and lighting. Operation of the AAU existing sites has primarily involved interior renovations, thus resulting in no effects on biological resources. Noise generated by temporary

[91] San Francisco Recreation and Park Department, Significant Natural Resource Areas Management Plan, February 2006. Available online at http://sfrecpark.org/parks-open-spaces/natural-areas-program/significant-natural-resource-areas-management-plan/snramp/. Accessed on February 18, 2016.

[92] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, p. 4.14-5.

construction activities would have been largely restricted to the interior of buildings and would not have been expected to disturb nesting birds.

Occupation of all of the AAU existing sites and changes in use of those sites have not had a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species. For each of these reasons, changes in use of AAU existing sites have resulted in no substantial combined effects on biological resources. Similarly, none of the AAU existing sites are adjacent to reasonably foreseeable development that would result in significant effects on biological resources. Therefore, the changes in use of AAU existing sites have not contributed to substantial loss of habitat or other potential cumulative effects on biological resources.

3.4.15. Geology and Soils

The changes in use at AAU's existing sites did not result in substantial ground-disturbing activities, building demolition, or building additions. Tenant improvements were limited to interior alterations and minor exterior alterations such as signage, awnings, window replacement, re-roofing, and painting, as well as limited seismic reinforcing. In addition, unless occurring on adjacent or very nearby properties, geological effects are localized and do not combine to result in area-wide effects. Therefore the changes in use and minor modifications at the 34 AAU existing sites did not result in combined adverse effects to geology or soils.

All buildings required to undergo seismic retrofits have been upgraded in accordance with the San Francisco Building Code. Seismic retrofitting accomplished by AAU has reduced the potential for damage and personal injury as a result of seismic events. Although buildings could remain vulnerable during an earthquake, the building alterations associated with the changes in use would have no negative effect on the building's performance under a ground-shaking event. Seismic events would affect the buildings on each of the AAU existing sites, but the effects on each building would not combine to result in more severe effects.

3.4.16. Hydrology and Water Quality

Wastewater and stormwater associated with the changes in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast or North Point Water Pollution Control Plants. Prior uses of the 34 existing sites would have contributed similar volumes of wastewater and stormwater runoff. Therefore, the changes in use have not had combined or cumulative effects on water quality.

Because tenant improvements were limited to interior alterations or routine exterior modifications (e.g., installation of signage, painting, and re-roofing), the amount of impervious surface has not changed drainage patterns at the AAU existing sites. No combined effect on the quality or rate of stormwater flows into the City's combined sewer system has occurred.

All of the changes in use have occurred within existing buildings. Impacts due to flooding from tsunami or sea level rise are site-specific and would not combine to create an aggregate effect. In addition, in the event of a tsunami, AAU's Campus Safety Plan and the City's Emergency

Response Plan would help to minimize losses and reduce the possibility of death and injury to members of the campus community.

For the reasons stated above, no combined or cumulative effect on hydrology or water quality has occurred from the changes in use.

3.4.17. Hazards and Hazardous Materials

Seventeen of the 34 AAU existing sites contain hazardous materials and wastes that are regulated beyond common household materials thresholds. Hazardous materials and wastes commonly used at AAU existing sites include paints, cleaners, inks, dyes, solvents, glues, adhesives, curing agents, and glazes. In addition, many of AAU's buildings contain hazardous building materials including asbestos-containing materials, lead-based paint, or polychlorinated biphenyls (PCBs). AAU uses, stores, and disposes of their hazardous materials and wastes in accordance with local, state, and federal laws and regulations, as overseen by the U.S. Environmental Protection Agency and the San Francisco Department of Public Health. The primary City ordinances applicable to AAU activities at the existing sites are summarized below.

San Francisco Health Code Article 21

San Francisco Health Code Article 21 provides for safe handling of hazardous materials in the City. It requires any person or business that handles, sells, stores, or otherwise uses specified quantities to keep a current certificate of registration and to implement a Hazardous Materials Business Plan. The San Francisco Department of Public Health Hazardous Materials Unified Program Agency (HMUPA) has been granted authority by the state under the Unified Program to enforce the program element regulations pertaining to hazardous materials in the City. Seventeen of the 34 existing site contain hazardous materials and wastes and are enrolled in the City's HMUPA program.

The hazardous materials used at 17 of the AAU existing sites have not contributed to a Citywide concern regarding the presence of hazardous materials, in part because AAU is in compliance with or, in the case of ES-1, 2340 Stockton Street, ES-31, 601 Brannan Street, and ES-10, 950 Van Ness Avenue, is in the process of complying with regulations and ordinances, and because other buildings containing hazardous materials would be required to comply with the same regulatory regimes. Because AAU complies with the regulatory regime, no combined effect related to the use of hazardous materials has occurred.

San Francisco Health Code Article 22

San Francisco Health Code Article 22 (also called the "Maher Ordinance") is applicable to projects disturbing more than 50 cubic yards of soil and located in an area with suspected soil/groundwater contamination. The Maher Ordinance, which is administered and overseen by the San Francisco Department of Public Health, requires the project sponsor to retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment (ESA) that meets the requirements of San Francisco Health Code Section 22.A.6. The Phase I ESA determines the potential for site contamination and level of exposure risk associated with a project. Based on that information, soil and/or groundwater sampling and analysis, as well as remediation of any site contamination, may be required. Phase I ESAs also determine a site's likelihood to contain hazardous building materials including asbestos-containing materials, lead-based paint, or PCBs. These steps are required to be completed prior to the issuance of any building permit.

A Phase I ESA has been prepared for 31 of the 34 existing sites to determine if hazardous materials are present. Based on the age of the 34 existing sites and the determinations made by the completed Phase I ESAs for 20 of the 34 buildings, the presence of hazardous building materials in all of the properties is probable. Because building alterations were completed at all of the existing sites, there was the potential for asbestos-containing materials, lead-based paint, PCBs, or other hazardous building materials to have been disturbed and exposed during those renovations; however it is unknown because site improvements were performed with and without required building permits. The materials also require special disposal procedures that may not have been followed for all disturbed materials.

Because no excavation has been undertaken by AAU since the changes in use except at 2151 Van Ness Avenue, no buried hazardous materials were expected to have been exposed.[93] Prior to any future excavation with the potential to encounter contaminated soil and/or groundwater, AAU would need to comply with the applicable local and state regulations, including San Francisco Health Code Article 22A, the Maher Ordinance.

It cannot be determined if an effect on human health or the environment occurred as a result of the changes in use, because the scale of alterations and the presence of hazardous materials are not precisely known. Future alterations would need to be completed in compliance with San Francisco Health Code Article 22A, the Maher Ordinance, and other state and local regulations.

3.4.18. Mineral and Energy Resources

Based on lack of known mineral resources or designated locally important mineral resource recovery sites within the City, no combined effects on these resources have occurred as a result of the change in use of the existing AAU sites.

Occupation of the AAU existing sites involved a change in use. The tenant improvements associated with the changes in use did not require large amounts of fuel, energy, and water. Although all of the sites contribute to use of these resources, combined effects have been insubstantial. No building demolition or major new construction occurred; therefore, a new and substantial use of fuel, water, and energy that would be required for such activities did not occur. AAU would be required to comply with the City's commercial and residential water conservation ordinances, which would reduce water and energy waste at AAU's existing sites. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other applicable requirements would reduce fuel and energy consumption associated with the change in

[93] The small amount of soil excavated at 2151 Van Ness Avenue is not likely to have contained substantial amounts of hazardous materials based on the fact that the site is not on filled land, the church building now occupied by AAU has been on the site since the late 1800's, and little or no lead-based paint would have been used on the exterior.

use at the AAU existing sites.[94] AAU's improved shuttle service associated with the use of the 34 existing AAU sites may have reduced the use of private cars from the combined sites, diminishing the amount of fuel that would have likely otherwise been consumed. For these reasons, the use of energy associated with the changes in use at the existing sites in combination would not make a considerable contribution to the wasteful use of energy. The combined effect on mineral and energy resources from the changes in use was insubstantial.

3.4.19. Agricultural and Forest Resources

The AAU existing sites are located within fully developed, existing neighborhoods in urbanized areas of San Francisco. The City is highly developed with urban uses and is therefore not agricultural in nature. The entire City is identified as "Urban and Built-Up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program and does not contain any areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance. None of the AAU existing sites are zoned for agricultural use or are under a Williamson Act contract.

There are approximately 105,000 street trees in the City.[95] Trees are an important resource to the people of San Francisco and to the varied wildlife species that use the urban forests within the City. Many of the existing AAU sites have street trees. However, none of the AAU existing sites contain forest or timber lands, support timber uses, or are zoned for timber uses, and no forest land is identified within the City and County of San Francisco.

The AAU existing sites are located in urban, developed locations within San Francisco. These areas are not zoned for agriculture, nor are they zoned as forest or timberland. Therefore, occupation of the AAU existing sites has had no effect on agricultural or forest lands.

Based on the lack of agricultural and forest resources at the AAU existing sites, their combined changes in use have not resulted in substantial combined effects related to agricultural and forest resources, nor have the existing sites contributed to any cumulative effects on agricultural and forest resources.

---

94 Greenhouse Gas Analysis: Compliance Checklist for the Existing Sites, November 24, 2015.
95 San Francisco Urban Forestry Council, Annual Report (June 2015), http://www.sfenvironment.org/downloads/library/trees_urbanforestrycouncil_2010_annual_uf_report.pdf. Accessed November 6, 2015.

4. ENVIRONMENTAL ANALYSIS OF INDIVIDUAL SITES

4.1. INTRODUCTION TO ENVIRONMENTAL ANALYSIS OF INDIVIDUAL SITE ASSESSMENTS

This chapter provides the individual, site-specific discussions of environmental effects associated with the prior changes in use for the 23 existing sites requiring approval of legislative amendments, CU authorizations, and/or building permits, and a site-specific historic architectural resource evaluation for the five sites that only require review by the Historic Preservation Commission (HPC) pursuant to Articles 10 or 11 of the Planning Code.

A site-specific historic architectural resource evaluation also has been done for 21 of the existing sites in addition to the five requiring only HPC review, so in all 26 of the 28 sites requiring discretionary actions have been evaluated for effects on historic resources (950 Van Ness Avenue [ES-10] and 601 Brannan Street [ES-31] are not considered historic architectural resources). Ten of the existing sites are Article 10 or Article 11 buildings and require review by the Historic Preservation Commission to legalize work performed without a permit and without the required PTA or COA entitlement. Five of the ten Article 10 and 11 sites do not require a change in use; therefore, no environmental consequences have been evaluated other than historic architectural resources for these five sites (see Section 4.3, Article 10 or Article 11 Buildings).

In Section 4.2, Individual Site Assessments, the individual site assessments are presented by "existing site number" (ES-1, ES-2, etc.) as identified in Table 1, Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities, pp. 1-6 - p. 1-8, Table 2, Summary of Uses and Required Discretionary Actions for AAU's Existing Residential Facilities, pp. 1-9 - 1-11, and Figure 1, Existing AAU Campus Sites, p. 1-5. Recommended Conditions of Approval are proposed for each site in Sections 4.2 and 4.3 as part of the discussion of the analysis topics. The recommended Conditions of Approval are also listed in Table 26, Recommended Conditions of Approval for AAU Existing Sites. The individual site assessments and recommended Conditions of Approval will be used by the Planning Department staff and provided to decision-makers as part of their Case Reports for all subsequent approvals.

Table 26. Recommended Conditions of Approval for AAU Existing Sites

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
All Existing Sites	ES-TDM	**Transportation Demand Management (TDM).** AAU shall implement Transportation Demand Management (TDM) strategies such as the following to reduce single occupancy vehicle (SOV) trips. The TDM program targets a reduction in SOV trips by encouraging persons to select other modes of transportation, including walking, bicycling, transit, car-share, carpooling and/or other modes. ■ Identify a TDM coordinator with responsibility for implementing and operating all TDM measures. ■ Provide information on alternate modes of transportation such as transit service, rideshare programs to staff/faculty upon hire and/or request and to students upon request. ■ Conduct TDM program monitoring, collecting data on implemented strategies and their effectiveness overall on vehicle trip reduction. ■ Consider a subsidy for staff/faculty for Muni monthly passes with initial hire or on an on-going basis. ■ Implement a Transportation Management Plan to provide multimodal access to existing AAU sites.
ES-1 **2340 Stockton Street**	ES-1: TR-1	**Remove curb cuts.** AAU shall remove the curb cut/driveway on Beach Street and use the two existing curb cuts on Stockton Street for accessing leased parking lot.
	ES-1: GHG-1	**Compliance with Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-2 **2295 Taylor Street**	ES-2: GHG-1	**Compliance with Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-3 **1727 Lombard Street**	ES-3: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-3: TR-2	**Site Driveway Removal.** AAU shall eliminate two of the three existing curb cuts (one on Lombard Street and one on Greenwich Street) and replace with two or more on-street public parking spaces.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-3: TR-3	**Pedestrian Improvements.** As part of the parking lot improvement, AAU should explore whether a mid-block pedestrian pathway could be established at this mid-block location to replace the driveway extending through the site to Greenwich Street, taking into account operational and safety considerations.
	ES-3: TR-4	**Bicycle Parking.** AAU shall improve the arrangement and type of existing bicycle parking, and add 20 Class I bicycle parking spaces and 3 Class II bicycle parking spaces to meet the Planning Code requirement. Bicycle rack types, location and clearance requirements should be consistent with City Planning guidance. Bicycle parking should be conveniently located and easily accessed from the ground floor (at grade level).
	ES-3: NO-1	**Interior Noise Levels for Residential Uses.** For existing AAU residential buildings located along streets with noise levels above 60 dBA L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.
	ES-3: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 – 155.4.
ES-4 **2211 Van Ness Avenue**	ES-4: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the AAU shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-4: TR-2	**Class I Bicycle Parking.** AAU shall add 5 Class I bicycle parking spaces to meet the Planning Code requirement. Since there is limited access to the rear courtyard of 2211 Van Ness Avenue, these spaces could be provided at the 2209 Van Ness Avenue student housing site (next door). Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-4: TR-3	**Class II Bicycle Parking.** AAU shall provide 3 Class II bicycle parking spaces along Van Ness Avenue. The Class II bicycle parking spaces on Van Ness Avenue shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-4:GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
ES-5 **2209 Van Ness Avenue**	ES-5: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-5: TR-2	**Shuttle Loading Zone.** AAU shall shorten the existing 40-foot-long white zone in front of the 2209 Van Ness Avenue site since only Route M serves the site at this time and a regular shuttle stop per AAU's shuttle policy is typically 20 to 25 feet in length. The type of on-street parking created shall be coordinated with SFMTA.
	ES-5: TR-3	**Class I Bicycle Parking.** AAU shall add 14 Class I bicycle parking spaces at 2209 Van Ness Avenue. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-5: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.
ES-6 **2151 Van Ness Avenue**	ES-6: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-6: TR-2	**Bicycle Parking.** The bicycle rack in the basement of the building is not convenient to access. AAU shall add secured bicycle racks for students and staff at conveniently accessible locations (at grade level). Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-6: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-8 **1849 Van Ness Avenue**	ES-8: HR-1	**Signage.** LED signage shall be removed using the least invasive means possible, with care taken to avoid damage to adjacent historic materials, surfaces, and finishes; the wall materials and finishes shall be restored to match existing in appearance (including materials, texture, color, thickness, and application method).
	ES-8: TR-1	**Shuttle Service.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-8: TR-2	**Shuttle Stop.** Currently (2015) only one shuttle bus route (Route M) utilizes the 65-foot-long white zone; therefore, AAU shall reduce this zone to the typical 20 or 25 feet for use by one shuttle bus. The 40 to 45 feet of on-street curb space should then be returned, in coordination with SFMTA, to public parking or commercial loading spaces.
	ES-8: TR-3	**Bicycle Racks.** AAU reports the presence of 30 single cycle racks on the third floor of the building (which connects to the ground floor entry from Washington Street). AAU shall relocate these racks to the ground floor in a more convenient location and add signage to direct students to bicycle parking location(s). Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-8: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-9 **1916 Octavia Street**	ES-9: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU should continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing the frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-9: TR-2	**Shuttle Stop.** This site is served by AAU shuttle buses along Octavia Street, but there is no white passenger loading zone. AAU shall coordinate with the SFMTA to create a white zone using existing on-street parking.
	ES-9: TR-3	**Bicycle Parking.** AAU shall rearrange existing bicycle parking to allow for sufficient clearance of parked bicycles (at least two feet). Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-9: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.
ES-10 **950 Van Ness Avenue**	ES-10: TR-1	**Curb Cut Removal.** AAU shall remove unnecessary curb cuts along O'Farrell Street and Van Ness Avenue, in coordination with SFMTA, DPW and the Planning Department. Curb cut removal also improves pedestrian conditions along O'Farrell Street and Van Ness Avenue, and potentially increases the amount of on-street parking and/or commercial parking adjacent to the project site.
ES-11	ES-11: HR-1	**Canopy Removal.** Any wall perforations or damage to historic materials shall be repaired, patched, and refinished to match existing surfaces in materials and appearance.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
1153 Bush Street	ES-11: HR-O-1	**(Optional) Windows.** The window removal and replacement does not meet Standards Nos. 2, 3, 5, 6, or 9. However, these elevations are not visible from the public right-of-way, and the affected features are considered of secondary character-defining importance. The Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS)-compliant approach would be to remove and replace infill and vinyl windows with period-appropriate windows. Design of replacement windows shall be based on evidence (historic photographs, extant historic windows) rather than conjecture.
	ES-11: TR-1	**Shuttle Demand and Capacity.** AAU shall assess, adjust and monitor the shuttle bus capacity for Routes D, E, G, H, I, M and Sutter Express, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-11: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.
ES-12 **1080 Bush Street**	ES-12: HR-1	**Signage.** The illuminated wall sign shall be removed and the original physical appearance and materials of the segmental brick header arches replaced. Any perforations or damage to historic materials should be repaired and surfaces refinished to match existing materials and appearance. If a new sign is to be installed, it shall be placed in a location that does not obscure character-defining features and installed in a manner that results in minimal damage to historic architectural resources. In general, the recommended approach for installing signage is to use mortar joints or the jamb of a noncontributing building component (rather than character-defining masonry).
	ES-12: HR-2	**Door Removal.** AAU indicates that the western ground-level door was replaced due to damage in 2013. The replacement door installed by AAU is not consistent with the character of the other service door located at the eastern end of the ground level. To facilitate Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) compliance, the door shall be removed and replaced with a door that replicates the eastern ground-level door.
	ES-12: TR-1	**Class I Bicycle Parking.** AAU shall add 9 Class I bicycle parking spaces, or in consultation with SFMTA shall add 9 Class II bicycle parking spaces along Bush Street. As an alternative, AAU may propose Bay Area Bike Share. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-12: GHG-1	**Compliance with Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
ES-13 **860 Sutter Street**	ES-13: HR-1	**Remove and Replace Vinyl Windows.** Non-original vinyl windows shall be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.
	ES-13: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for the shuttle routes serving 860 Sutter Street (D, E, G, H, I, M and Sutter Express), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-13: TR-2	**Sidewalks/Shuttle Waiting.** For this and/or the potential relocated shuttle stop serving 860 Sutter Street and nearby residential facilities (i.e., 1153 Bush Street, 1080 Bush Street, 817-831 Sutter Street), AAU shall continue to conduct a peak semester, peak weekday, 7:30 a.m. to 7:30 p.m. observation/count of shuttle passengers waiting for shuttles to determine if adjacent pedestrian facilities are being blocked at certain times of the day. AAU should consider improving shuttle waiting areas either inside or adjacent to (subject to San Francisco Department of Public Works review and approval) the building (such as adding benches to direct waiting passengers closer to the existing building). In addition, AAU could adjust shuttle routing and frequency to better meet the shuttle demand at this site.
	ES-13: TR-3	**Relocate Shuttle Stop.** The AAU shuttle stop is located in the tow-away zone active between the hours of 4:00 p.m. and 6:00 p.m. adjacent to a transit-only lane. AAU shall relocate the shuttle stop to the existing shuttle zone on 491 Post Street, or shall work with SFMTA to find another suitable location, during the PM peak period.
	ES-13: TR-4	**Shuttle Zone Size and Double-Parking.** Based on the existing shuttle schedule and the size of the shuttle buses serving this AAU site, the existing 47-foot-long loading zone cannot accommodate the peak loading demand, causing shuttle buses to double park along Sutter Street. Consistent with AAU Shuttle Policy, AAU shall continue to adjust shuttle frequency and shuttle bus size to spread shuttle arrival times and monitor on-time performance to ensure the estimated peak shuttle demand is met within the shuttle zone.
	ES-13: TR-5	**Class I Bicycle Parking.** AAU shall add 42 Class I bicycle parking spaces to meet the Planning Code requirement for 860 Sutter Street. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-13: TR-6	**Class II Bicycle Parking.** AAU shall provide at least 3 (more if feasible, to accommodate nearby AAU residents utilizing bicycle parking at this centralized shuttle stop) Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-13: GHG-1	**Compliance with Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4. Bicycle parking shall be consistent with San Francisco Planning Department guidance.
ES-14 **817-831 Sutter Street**	ES-14: HR-1	**Windows.** The window removal and replacement does not meet Standard Nos. 2, 3, 5, 6, or 9. However, the secondary elevation is not visible from the public right-of-way, and the affected features are considered of secondary character-defining importance. The Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS)-compliant approach would be to remove and replace vinyl windows with period-appropriate windows, based on documentary evidence. In addition, per the SOIS, original features shall be retained and repaired where possible, and, where necessary, replaced in-kind (to match in materials and appearance).
	ES-14: TR-1	**White Passenger Loading Zone.** Since no shuttle service is provided to this site, AAU shall remove the 42-foot-long white passenger-loading zone in front of the 817-831 Sutter Street site and return the resulting space to public parking or a commercial loading zone.
	ES-14: TR-2	**Pedestrian Environment.** As noted above, the ground floor building face of the 817-831 Sutter Street building includes four entryways (one gated), one large and one small window, and one large building face. AAU shall coordinate with the San Francisco Planning Department on a more pedestrian-friendly design, if compatible with the historic fabric of the building. For a student housing and café use, AAU does not likely need all four entries, and minor modifications (doors, windows, etc.) to the building could be made to improve the pedestrian environment along Sutter Street.
	ES-14: TR-3	**Class I Bicycle Parking.** AAU shall add 49 Class I bicycle parking to meet the Planning Code requirement. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-14: TR-4	**Class II Bicycle Parking.** AAU shall provide at least 6 Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance
	ES-14: NO-1	**Interior Noise Levels for Residential Uses.** For existing AAU residential buildings located along streets with noise levels above 60 dBA L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by a person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.
	ES-14: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 through 155.4.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
ES-16 **1069 Pine Street**	ES-16: TR-1	**Commercial Vehicle Access.** All commercial vehicle deliveries should be allowed to use the 1055/1069 Pine Street driveway and parking areas, taking into account possible operational and safety considerations. The driveway is currently gated, so modifications to the gate system may be required to accommodate this traffic.
	ES-14: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Section 155.1 – 155.4.
ES-17 **1055 Pine Street**	ES-17: TR-1	**Class I Bicycle Parking.** No bicycle parking is provided at 1055 Pine Street. However, the adjacent 1069 Pine Street building provides an estimated eight (poorly located) bicycle parking spaces. To address the bicycle demand of the student housing use at 1055 Pine Street, AAU shall add 4 Class I bicycle parking spaces, or, in consultation with SFMTA, shall add 4 Class II bicycle parking spaces on Pine Street. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-17: TR-2	**Commercial Vehicle Access.** All commercial vehicle deliveries to the 1055/1069 Pine Street buildings should be allowed to utilize the driveway and rear parking area, taking into account possible operational and safety considerations. The driveway is currently gated, so modifications to the gate system may be required to accommodate this traffic.
	ES-17: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.
ES-19 **680 Sutter Street**	ES-19: HR-1	**Awning.** The awning and brackets shall be removed and any damaged material shall be repaired.
	ES-19: HR-2	**Windows.** Non-original vinyl and aluminum windows shall be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.
	ES-19: HR-3	**Restore Appearance and Proportions of Sixth-Story Fire Escape Platform, Balconette, and Railing.** The original appearance and proportions of the fire escape's façade-wide platform, balconette and decorative railing at the sixth story shall be restored, using documentary evidence.
ES-20 **620 Sutter Street**	ES-20: HR-1	**Awning.** Awning covers and frames shall be removed and the original entrance appearance restored. Following removal of the awning mounting hardware, perforations to and damaged areas in the masonry of the ornamental door surrounds shall be patched, repaired, and restored to match existing in appearance (color, texture, detailing).

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-20: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for the shuttle routes serving the 620 Sutter site (D, E, G, H, I, M and Sutter Express), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-20: TR-2	**Shuttle Zone Size and Double-Parking.** Based on the existing shuttle schedule and the size of the shuttle buses serving this AAU site, the existing 66 foot-long loading zone cannot accommodate the peak loading demand, causing shuttle buses to double park along Sutter Street. AAU should monitor on-time performance to ensure the estimated peak shuttle demand is met within the shuttle zone.
	ES-20: TR-3	**Relocate Shuttle Stop.** The AAU shuttle stop is located in the tow-away zone active between the hours of 4:00 p.m. and 6:00 p.m. adjacent to a transit-only lane. AAU shall relocate the shuttle stop to the existing shuttle zone on 491 Post Street, or shall work with SFMTA to find another suitable location during the PM peak period.
	ES-20: TR-4	**Shuttle Zone Enforcement.** Field observation indicates that the shuttle-only passenger loading zone was occasionally used by non-shuttle vehicles. AAU should deploy staff during the peak periods to enforce exclusive use of the shuttle stop by AAU shuttle vehicles.
	ES-20: TR-5	**Shuttle Passenger Waiting.** For this and/or the potential relocated shuttle stop serving the 620 Sutter Street and nearby residential facilities (i.e., 1153 Bush Street, 1080 Bush Street, 860 Sutter Street, and 817-831 Sutter Street), AAU should continue to conduct a peak semester, peak weekday, 7:30 a.m. to 7:30 p.m. observation/count of shuttle passengers waiting for shuttles to determine if adjacent pedestrian facilities are being blocked at certain times of the day. AAU should consider adding and improving shuttle waiting areas outside the building, and creating a waiting area inside the building, with information about when the next shuttle is expected to arrive, taking into account possible operational and safety considerations. Measures outside the building would be subject to San Francisco Department of Public Works review and approval, and could include adding benches to encourage passengers to wait closer to the building rather than at the curb.
	ES-20: TR-6	**Class I Bicycle Parking.** AAU shall add 31 Class I bicycle parking spaces to meet the Planning Code requirement. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).
	ES-20: TR-7	**Class II Bicycle Parking.** AAU shall provide at least 3 Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Given the pedestrian pooling that sometimes occurs in front of the site as students wait for shuttles, these Class II spaces may be more appropriately installed along the edges of the site or at other nearby AAU facilities (e.g., 625 Sutter Street, 655 Sutter Street, or 680 Sutter Street) on the block. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-20: NO-1	**Interior Noise Levels for Residential Uses.** For existing AAU residential buildings located along streets with noise levels above 60 dBA L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by a person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.
	ES-20: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all parking spaces in accordance with Planning Code Sections 155.1 - 155.4.
ES-21 **655 Sutter Street**	ES-21: HR-1	**Signage.** To bring the sign into compliance with Article 11 guidelines AAU shall remove the current sign using the gentlest means possible, repair the exterior wall surface as needed, and install a new sign that is indirectly illuminated as specified in KMMS Design Standards.
	ES-21: HR-2	**Paint.** AAU shall repaint the dark storefront colors in lighter hues, in accordance with Article 11 guidelines.
ES-22 **625–629 Sutter Street**	ES-22: HR-1	**Signage.** The projecting wall sign shall be removed and the original physical appearance of wall materials replaced. If a new sign is to be installed, it shall follow the guidelines of the KMMS Design Standards and be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated.
	ES-22: HR-2	**Awnings.** The current window awnings shall be removed using the gentlest means possible, with materials repaired and refinished to match existing. If new awnings are to be installed, they shall follow the guidelines of the KMMS Design Standards and be of a smaller scale such that they do not obscure the character-defining transom windows.
	ES-22: HR-3	**Windows.** The non-original windows shall be removed using the gentlest means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.
ES-23 **491 Post Street**	ES-23: HR-1	**Signs and Statues.** The banner signs and statues shall be removed, areas of damage repaired, and the original appearance restored and refinished to match existing in materials and appearance. If a new sign is to be installed, it shall be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and designed and placed to comply with applicable Article 11 guidelines.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-23: TR-1	**Bicycle Parking.** AAU reports the presence of two bicycle racks (20 Class I spaces) in the basement of the building. AAU shall relocate these racks to the ground floor in a more convenient location and add signage to direct students to the bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-23: TR-2	**Reconfigure Curb Space to Accommodate Relocated Shuttle Stop.** If the recommended Condition of Approval in the discussions of 860 Sutter Street (ES-13) and 620 Sutter Street (ES-20) is implemented, the shuttle zone along Post Street at the 491 Post Street site would be required to increase in size, subject to SFMTA approval, from 40 feet to 80 feet to accommodate the additional six routes (E, G, H, I, M, and Sutter Express). With the potential shuttle zone expansion, the commercial loading space in front of the 491 Post Street site would have to be relocated to the west, shortening the tour bus zone along Post Street by 20 feet. All changes to the curb zone shall be reviewed and approved by SFMTA.
	ES-23: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-25 **540 Powell Street**	ES-25: HR-1	**Signage.** The projecting wall sign shall be removed and the original physical appearance of wall materials and surrounding details and finish restored. If a new sign is to be installed, it shall be placed in a location on a secondary elevation that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated per Article 11 and Article 6 guidelines.
	ES-25: HR-2	**Awnings.** The barrel window awnings shall be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, and the appearance of the original windows/features restored per documentary evidence. Materials shall be repaired and refinished to match existing.
	ES-25: HR-3	**Parapet.** For the parapet repair to be brought into SOIS compliance, the steel reinforcement bars shall be removed and replaced with supports that have minimal visual impacts to character-defining features, such as the central emblem. The appearance and materials of the parapet shall be repaired and restored using documentary evidence, and wall materials shall be patched and refinished to match existing.
	ES-25: HR-4	**Windows.** Nonoriginal vinyl windows shall be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, surfaces, or materials. Using documentary evidence or extant original windows, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames. Similarly, the altered original window on the façade shall be replaced and its original character/appearance restored.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
ES-26 **410 Bush Street**	ES-26: HR-1	**Signage.** The exterior signs on the façade (south) and rear (north) elevations do not appear to comply with current guidance for signage within Conservation Districts. To bring the signage into compliance AAU shall remove the project box signs, repair/patch and refinish the exterior wall to match existing in materials and appearance, and install a new sign that is indirectly illuminated as specified in applicable guidelines for signage in Article 11 Conservation Districts.
ES-27 **77 New Montgomery Street (aka 79 New Montgomery Street)**	ES-27: HR-1	**Signage.** The projecting signs do not appear to comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. To facilitate compliance, The two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) shall be removed, and the original surface patched and repaired where necessary and refinished to match existing in materials and appearance. To facilitate compliance with Article 11 guidelines, the one remaining sign shall be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting, if feasible. During site inspections, exposed conduit was noted on the exterior walls left of the entrance. AAU shall conceal any exposed conduit from view, per the Article 11 guidelines for properties in adopted Conservation Districts.
	ES-27: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for its shuttle routes, specifically Routes G and Hayes Express, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-27: TR-2	**White Passenger Zone on New Montgomery Street.** A 44-foot-long white passenger loading zone is located adjacent to the site on New Montgomery Street. Since this white zone is not used for AAU shuttle operations, AAU shall, with the approval of SFMTA, return this area to on-street off-peak parking or commercial loading.
	ES-27: TR-3	**Monitor Pedestrian Traffic.** Since pedestrian flows on sidewalks adjacent to the 77 New Montgomery Street site are intermittently heavy, AAU shall monitor pedestrian volumes and queuing on the sidewalks at the site, particularly student volumes during the peak periods. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles, reminding students not to block adjacent sidewalks, providing a gathering area inside the building, or other measures to reduce this activity, taking into account possible operational and safety considerations.
	ES-27: TR-4	**Bicycle Parking Location.** AAU shall relocate the Class I bicycle parking to a more convenient location on the ground floor, and add signage to help students locate the bicycle parking

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-27: TR-5	**Bicycle Parking Spaces.**, AAU shall provide an additional 18 Class I bicycle parking spaces (for a total of 34 Class I spaces) to meet the parking demand, or in coordination with SFMTA add 18 Class II bicycle parking spaces along New Montgomery Street. The public bicycle racks along New Montgomery Street were observed to be highly utilized during the school year by AAU students and/or staff. Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-27: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-28 **180 New Montgomery Street**	ES-28: HR-1	**Signage.** The projecting signs do not comply with the SOIS or Article 11 guidelines. With three large projecting signs placed just above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. To facilitate compliance, AAU shall remove the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) patch and repair the original surface where necessary, and refinish to match existing in materials and appearance. In order to facilitate compliance with Article 11 guidelines, the one remaining sign should be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting.
	ES-28: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-28: TR-2	**Monitor Pedestrian Traffic.** Since pedestrian flows on sidewalks adjacent to the 180 New Montgomery Street site are intermittently heavy, AAU shall monitor pedestrian volumes and queuing on the sidewalk at the site, particularly student volumes during the peak periods. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals [similar to NextBus]), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity, taking into account possible operational and safety considerations.
	ES-28: TR-3	**Bicycle Parking.** AAU shall provide at least an additional 16 Class I bicycle parking spaces (adding to the existing 28, for a total of 44 spaces), or shall coordinate with SFMTA to provide 16 Class II bicycle parking spaces along New Montgomery Street to meet the estimated demand. The Class II bicycle parking spaces on the adjacent street shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance. AAU may propose Bay Area Bike Share as an alternative.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-28: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-30 **58–60 Federal Street**	ES-30: TR-1	**Shuttle Demand and Capacity.** AAU shall assess, adjust, and monitor the shuttle bus capacity for Shuttle Route G serving 58 60 Federal Street, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-30: TR-2	**Shuttle Stop** AAU shall work with SFMTA to establish an alternate shuttle bus stop, such as near the intersection of Federal and Rincon streets, to serve the 58-60 Federal Street building, taking into account possible operational and safety considerations.
	ES-30: TR-3	**AAU Pedestrian Volumes.** AAU shall work with SFMTA and adjacent businesses to examine methods to improve pedestrian conditions along Federal Street, predominantly along the west side of the building. Measures could include wider sidewalks, pedestrian bulb outs, and signalized pedestrian crossing.
	ES-30: TR-4	**Class II Bicycle Parking.** AAU reports the presence of four bicycle racks (36 Class II bicycle parking spaces) in the basement of the building. AAU should relocate these racks (36 Class II spaces) to the ground floor in a more convenient location and add signage to direct students to bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.
	ES-30: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-31 **601 Brannan Street**	ES-31: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for its shuttle routes, specifically Routes G, H, and I, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-31: TR-2	**Pedestrians and Parking Lot Design.** AAU shall remove two of the four driveway curb cuts, the west driveway and curb cut on Bluxome Street and the east driveway and curb cut on Brannan Street, taking into account possible operational and safety considerations.
	ES-31: TR-3	**Bicycle Parking Relocation.** AAU shall relocate the existing bicycle parking spaces to a more convenient location such as in front of the main entrance to the building and add signage to direct students to bicycle parking location, taking into consideration space constraints and operational demands. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-31: TR-4	**Shuttle Stop Relocation.** AAU shall relocate the existing shuttle bus zone from Fifth Street to the existing on-site parking lot accessed from Brannan Street, adjacent to the main building entry, taking into account possible operational and safety considerations, and with the approval of SFMTA, return this area to on-street public parking.
	ES-31: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-33 **460 Townsend Street**	ES-33: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes (G, H, and I), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.
	ES-33: TR-2	**Sidewalk on Townsend Street.** AAU shall provide a continuous sidewalk along the frontage of the 460 Townsend Street site that connects to the adjacent AAU site at 466 Townsend Street (ES-34), considering the possible operational or safety issues.
	ES-33: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.
ES-34 **466 Townsend Street**	ES-34: TR-1	**Shuttle Demand and Capacity.** Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes (G, H, and I), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.
	ES-34: TR-2	**AAU Pedestrian Traffic.** Since pedestrian flows on adjacent sidewalks of the 466 Townsend Street site may be intermittently heavy, AAU shall monitor pedestrian volumes and queuing on the sidewalk at the site, particularly student volumes during the peak pedestrian periods, is recommended. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals [similar to NextBus]), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity, taking into account possible operational and safety considerations.
	ES-34: TR-3	**Bicycle Parking.** AAU shall relocate the existing bicycle parking spaces to a more convenient location, such as the service alley between the two Townsend Street buildings and the ground floors of the building, taking safety conditions into consideration, and add signage to direct students to the bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Table 26 (Continued)

Existing Site	Recommended Condition of Approval Number	Recommended Condition of Approval
	ES-34: TR-4	**Class I or II Bicycle Parking.** AAU shall provide at least 2 additional Class I bicycle parking spaces, or in coordination with SFMTA, provide 2 Class II bicycle parking spaces along Townsend Street. The location of additional Class II bicycle parking spaces shall be coordinated with SFMTA.
	ES-34: GHG-1	**Compliance with the Bicycle Parking Requirements.** AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 – 155.4.

Source: SWCA/Turnstone Consulting, May 2016

This page intentionally left blank.

4.2. INDIVIDUAL SITE ASSESSMENTS

4.2.1. 2340 Stockton Street (ES-1)

Property Information

The 2340 Stockton Street existing site (ES-1) is also known as 2300 Stockton Street and is called "Northpoint" by the Academy of Art University (AAU).[1] ES-1 is a 44,530-square-foot, three-story building constructed in 1970, and is located on Stockton Street between Beach and North Point streets, near The Embarcadero in the Fisherman's Wharf neighborhood (Photographs 1–4).[2] Figure 1, ES-1:2340 Stockton Street – Existing Condition, in Appendix TDM shows the 2340 Stockton Street site and surrounding streets. The building has a capacity of 391 occupants (380 students and 11 faculty and staff members). The site is Lot 004 in Assessor's Block 018.

Prior to AAU occupation in 1991, the building was occupied by the Otis Elevator Company offices.[3] ES-1 has two floors above ground-floor parking. AAU converted the property in 1991 to a postsecondary educational institution and currently uses the space for lecture classrooms, labs/studios, offices, and student and faculty lounges. The ground-floor parking lot is operated as paid daily parking. The site is served by AAU shuttle bus routes D and E. AAU shuttle buses use the 91-foot-long white passenger loading zone on the east side of Stockton Street, south of Beach Street, for passenger loading.

ES-1 is in a C-2 (Community Business) Zoning District and is located in WR-2 (Waterfront Special Use District No. 2). The C-2 Zoning District allows retail, office, restaurant, residential, institutional, and automotive uses. Height and bulk districts throughout the Fisherman's Wharf area are 40-X. ES-1 is within close proximity to Fisherman's Wharf. Planning and policy documents that are applicable to ES-1 include the Port of San Francisco's *Fisherman's Wharf Planning Committee Recommendations* and the City and County of San Francisco's *Public Space and Public Life in Fisherman's Wharf.*

Tenant Improvements and Renovations

AAU added exterior blade signs on four corners of the building in 1987, for a total of four signs, and installed a new fire alarm and sprinkler system in 2012.[4] AAU installed clearance bars at the parking entrance in 2015. AAU added a painted logo at the front entrance of the building without building permits.[5] AAU installed 12 rooftop condenser units without building permits.

---

1 Academy of Art University, *2011 Institutional Master Plan*, prepared by The Marchese Company (hereinafter referred to "*2011 IMP*"), November 2011, p. 83.
2 Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.
3 *2011 IMP*, p. 83.
4 Building Permits obtained for the improvements and renovations at ES-1 are: BPA #8701534 (new signs), #201204037467 (fire alarm), #201205039687 (fire sprinkler), #201306109030 (painted sign, permit never issued).
5 Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 1. 2340 Stockton Street (ES-1).

Photograph 2. Mid-block Stockton Street, facing southwest.

Photograph 3. Stockton Street facing west toward the Kirkland Muni Bus Yard.

Photograph 4. Stockton Street facing east toward the Pier 39 parking structure.

Required Project Approvals

The 2340 Stockton Street (ES-1) existing site would require a building permit to change the use from office to postsecondary educational institution within a C-2 Zoning District and the Waterfront Special Use District No. 2 under San Francisco Planning Code Section 171. A building permit is also required to permit the exterior blade signs.

Plans and Policies and Land Use

ES-1 is located within the Fisherman's Wharf area of San Francisco. In the immediate vicinity of ES-1 there are a mix of land uses including residential, commercial, parking, institutional, and industrial. Commercial uses include offices, Aquarium of the Bay, and the variety of restaurants, shops, and tourist attractions at Pier 39. The ES-1 building was built in 1970, is three stories, and was previously occupied by elevator company offices. The building is elevated and has street-level parking available underneath.

ES-1 fronts the entirety of Stockton Street between Beach and North Point streets. The Embarcadero is located approximately 400 feet east of ES-1. The streets near ES-1 are local roads with one lane in each direction, with the exception of Beach Street, which has two lanes in either direction. Parallel parking is available along Stockton and North Point streets. A large parking garage is located at the northwestern intersection of Stockton and Beach streets and street-level parking is available under the ES-1 building. Multiple San Francisco Municipal Railway (Muni) bus and cable car lines use Beach Street, The Embarcadero, and North Point Street. Bus and cable car stops are located on the southwestern and northwestern sides of the building, respectively.

The San Francisco Municipal Transit Authority's (SFMTA) Kirkland Bus Yard is located directly across Stockton Street from ES-1. The bus yard is used for storage, bus repair, a fueling/washing station, and staff facilities. To the north of ES-1 are restaurants, the aquarium, a cruise ship terminal, a ferry terminal, a harbor for private boats, a beach, and other miscellaneous tourist destinations associated with Fisherman's Wharf. Adjacent to and east of ES-1 is an office building that contains classrooms for Alliant International University, a postsecondary educational institution. A large parking garage with a pedestrian bridge that serves Pier 39 and the greater area is located on the triangular lot bordered by Beach Street, Powell Street, and The Embarcadero.

The zoning at ES-1 is C-2 (Community Business) as is the surrounding area. C-2 Zoning Districts serve several functions. They provide goods and services to residential areas of the City, both in outlying sections and in closer-in, more densely built communities. In addition, some C-2 Zoning Districts provide shopping goods and services, on a general or specialized basis, to a Citywide or a regional market area, complementing the main area for such types of trade in downtown San Francisco.[6] ES-1 is also located in WR-2 (Waterfront Special Use District No. 2). The Waterfront Special Use District No. 2 is intended to make industrial, commercial, and other operations related to waterborne commerce or navigation the principal use. Hotels and automobile service stations are permitted as a conditional use.[7] Postsecondary educational institutional uses are permitted within C-2 Zoning Districts and would need a building permit pursuant to Planning Code Section 171 to

---

6 Planning Code Section 210.1.
7 Planning Code Section 240.2.

change the use. The Waterfront Special Use District No. 2's goals include the promotion of industrial operations that directly relate to waterborne commerce or navigation. AAU's use as a postsecondary educational institution does not serve this function. However, AAU has occupied the building since 1991 and land use patterns and activities are similar to that of the previous use as an office building. Also, postsecondary educational institutions are principally permitted in the Waterfront Special Use District No. 2. The change in use would not physically divide an established community. The postsecondary educational institutional use would not change the scale or neighborhood character, which includes a similar educational use, Alliant International University, in the adjacent building at 1 Beach Street.

ES-1 is within the Fisherman's Wharf Planning Area, which has several planning and policy documents, including the Port of San Francisco's *Fisherman's Wharf Planning Committee Recommendations* and the City and County of San Francisco's *Public Space and Public Life in Fisherman's Wharf*. ES-1 use as a postsecondary educational institution is not notably inconsistent with these plans. Both policy documents contain proposals for improving public space, transportation, and pedestrian activities in the area. Height and bulk districts throughout the Fisherman's Wharf area are 40-X.

As noted above, the use of ES-1 has been changed by AAU from office to a postsecondary educational institutional use with classrooms, labs/studios, offices, and student and faculty lounges. The change in use of the existing structure involved limited exterior alterations, including the installation of signs on four corners of the building, described above under Tenant Improvements and Renovations. Therefore the ES-1 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects, and the uses as ES-1 would not result in any substantial effects on the environment.

<u>Population and Housing</u>

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-1 is 391 occupants (380 students and 11 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. The change in use may indirectly result in new residents of San Francisco due to student and employment growth at the site. Occupation by AAU may have resulted in displacement of employees; however, office space was likely found elsewhere. Conservatively presuming that ES-1 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, because it would represent less than 1 percent of the overall population of San Francisco (829,072).[8]

---

[8] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

The change in use at ES-1 from an office to postsecondary educational institution would have minimally changed the daytime population because the building, as an office, likely had a comparable capacity. No substantial effect on population has occurred from the change in use at ES-1.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-1 and all existing sites is discussed under the combined housing discussion, pp. 3-15 - 3-18. The change in use from an office to a postsecondary educational institution at ES-1 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-1 did not result in the displacement of housing because this site was previously used as office.

Aesthetics

ES-1 is located in the Fisherman's Wharf area of San Francisco, a major tourist attraction. ES-1 is a three-story commercial building constructed in 1970 as administrative offices. The building was built by celebrated local architecture firm Wurster, Bernardi, and Emmons, and was designed during a transitional era for Mid-Century Modernism. The building has no setback from the sidewalk, and is elevated with a parking lot underneath and the main office functions on the second and third floors. ES-1 is bounded by Beach Street to the north, Stockton Street to the west, North Point Street to the south, and two commercial buildings to the east. Due to its proximity to San Francisco Bay, unobstructed views of the North and East Bay, Alcatraz, and San Francisco's northern hills and neighborhoods are dominant. Street trees surround the building to the north, south, and west.

ES-1 is directly across The Embarcadero from Pier 39, which contains a high concentration of visitor-related commercial development and other attractions including a carousel, aquarium, and marina. Additionally, ferry and bay cruises launch from the piers on the north side of Jefferson Street, particularly at Piers 39 and 41. Fishing-related uses and sites are also apparent in the vicinity, including fish loading, handling, and distribution space at Pier 45. A large four-story parking garage and pedestrian skyway to accommodate the visitors to the nearby attractions are located directly across Beach Street from ES-1. Although the parking structure, Muni facilities, and The Embarcadero would suggest otherwise, the area is mainly pedestrian-oriented, with pedestrians far outnumbering cars.

Much of the streetscape on the southern side of The Embarcadero near ES-1 is dominated by low- and moderate-scale commercial, residential, industrial, and parking facilities. SFMTA's Kirkland Bus Yard is located within one City block to the west of ES-1 and contains dozens of buses and associated repair, washing, and fueling facilities. The southern side of North Point Street contains medium-density apartments, whereas the northern side has similarly scaled commercial buildings. The buildings around ES-1 are primarily modern (post-1960).

The change in use at ES-1 has caused minimal visual changes to the building and neighborhood. Alterations that would affect aesthetics include the installation of four AAU blade signs and an AAU logo adjacent to the main entrance. A flat "Academy of Art University" sign is affixed to the west façade above the third floor windows. The signage is comparable to other advertising in the area, including signs relating to Fisherman's Wharf. Flags, tour buses, bus stops, and other signage dominate the commercial development along The Embarcadero. AAU blade signs have been attached to the building since 1987 and are an established part of the visual environment. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-1.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

2340 Stockton Street (ES-1), the Otis Elevator Building, is a rectangular parcel that faces Stockton Street but spans the full width of the block from Beach Street on the north to North Point Street on the south. The Otis Elevator Building is the only building or structure on the property; it is three stories in height, has a rectangular footprint, and occupies the majority of the lot. At the west (primary) façade, the building directly abuts the sidewalk on Stockton Street. At the north, south, and east façades, the building is set back from the lot line, and there are parking lots at the perimeter. Brick walls line the north, south, and east ends of the property. At the north and south walls, there are regular breaks fitted with wrought-iron or metal grills.

A flat roof tops the building. In the center, there is a mechanical penthouse, which also has a flat roof. The building's first floor is open and functions as a parking garage with the exception of an enclosed lobby section. The second and third floors house classrooms, labs/studios, offices, and student and faculty lounges. The structure of the building is reinforced concrete clad in cement plaster at the exterior. At the façades, horizontal concrete beams delineate the floor levels and roofline. Flat concrete piers span from the second floor to the roof, dividing the façades into structural bays. These structural bays correspond to piers and beam ends visible in the parking garage. At the first floor, the piers are flush with the façade at the north and south sides of the building and set back at the west and east.

Vertical concrete mullions span from the second floor to the roof and further divide the structural bays: the structural bays are divided into five sections at the west and east façades and six sections at the north and south façades. Each section is fully filled with either a window or panels of dark tile laid in stacked bond with dark grout. At the west and east façades, the first, third, and fifth sections are fitted with windows, and the second and fourth are tile. At the north and south façades, the first, third, fourth, and sixth sections are fitted with windows and the second and fifth are tile. The windows are all fixed aluminum, and muntins divide the lower quarter. The glazing is tinted. Because the window frames, glazing, tile, and grout are all dark and fill the entire sections between the mullions, a grid pattern is created. Many of the fixed windows have been modified by the insertion, at an unknown date, of small aluminum sliders above the original muntins.

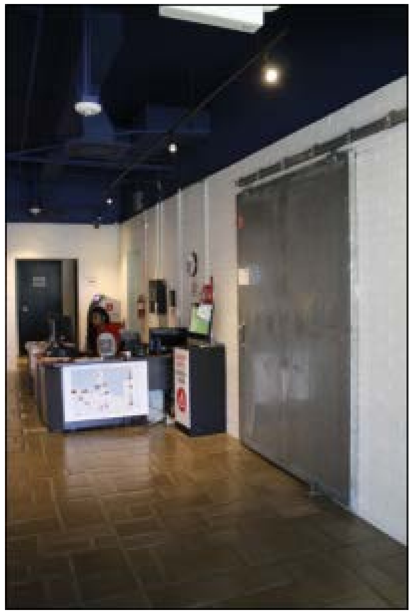
"Academy of Art University" blade signs, installed in 1987, are mounted on all exterior corners of the building at the third floor (Permit No. 8701534). A flat "Academy of Art University" sign is affixed to the west façade above the third floor windows. Overhead clearance bars were installed at the automobile entrances to the first floor parking garage in 2015. The building exhibits both Brutalist and International-style influences.

The interior of the Otis Elevator Building is largely characteristic of an office building dating to the early 1970s and does not appear to be extensively altered. The small lobby at the first floor features painted brick walls laid in common bond and original imprinted concrete floors. Alterations include new track lighting, televisions on the northern wall, and a sliding barn-style door on the southern wall. The surrounding parking garage is largely open. In the garage, the concrete piers and beams of the building's structural system are visible. At the ceiling, precast concrete coffers fill the spaces between the beams.

The upper floors feature long linear hallways running the length of the building, with offices and classrooms on either side. Alterations include the partial removal of linoleum flooring, the replacement of some doors, and the installation of track lighting (for representative photographs refer to Photographs 5–7).

Photograph 5. 2340 Stockton Street.

Photograph 6. West façade, entrance detail, 2340 Stockton Street.



Photograph 7. Interior lobby of subject property.

Site History

2340 Stockton Street is a three-story commercial building constructed in 1970 as the administrative offices for the Otis Elevator Company, originally established in New York in 1854. As early as 1904, the Otis Elevator Company had opened offices in San Francisco, at 509 and 511 Howard Street.[9] In 1924, the Otis Elevator Company completed a factory and assembly plant immediately east of the subject property, at 1 Beach Street. By 1969, in a reflection of the company's continuing expansion, Otis Elevator Company hired the renowned architecture firm of Wurster, Bernardi, and Emmons to design a signature office building next to its factory. The Otis Elevator Company occupied the building, along with other various, mostly short-term tenants, through 1985. AAU occupied the property in 1991.

California Register of Historical Resources Evaluation

The building at 2340 Stockton Street (ES-1) does not appear to be eligible for the California Register of Historical Resources (CRHR) under Criterion 1 for an association with significant patterns of events, including early architectural or post-earthquake development in North Beach, either as a contributor to a potential district or individually.

Regarding an association with the Otis Elevator Company, the building at 2340 Stockton Street was constructed for the Otis Elevator Company in 1970, and the company remained there until 1985. The company's San Francisco office opened in 1904, and after the 1906 Earthquake and Fire moved to Stockton and Beach streets (on the subject property). That building was demolished, and a new factory and office building was constructed at 1 Beach Street in 1924. By that time, the Otis Elevator Company had offices in over 100 cities throughout the United States.

---

9 Pacific Art Company. San Francisco: Her Great Manufacturing, Commercial and Financial Institutions are famed the World Over (Pacific Art Company, San Francisco, 1904-1905), 120.

The building at 2340 Stockton Street was neither the first building associated with the company, nor the first building in San Francisco associated with the company. The Otis Elevator Company Building at 1 Beach Street is listed in the National Register of Historic Places (NRHP) for its association with the company. Furthermore, the building at 2340 Stockton Street does not appear to retain any direct associations with significant individuals. Therefore, the building at 2340 Stockton Street does not appear to possess the significance required for CRHR eligibility under Criterion 2. Criterion 2 is applicable if a potential resource is associated with the lives of persons important in our past.

Regarding associations with other owners and tenants of 2340 Stockton Street, including the radio station KMEL and the California Youth Authority, the building appears ineligible for the CRHR under Criterion 2. Research did not reveal that any of the owners or occupants have made any significant contributions to local, state, or national history.

The commercial building at 2340 Stockton Street was designed by the notable Modernist firm Wurster, Bernardi, and Emmons. In considering the significance of the subject property, it is one of many Brutalist- and International-style commercial buildings designed by Wurster, Bernardi, and Emmons, as well as one of many Modernist commercial buildings constructed in San Francisco from the 1930s to 1970s. It exhibits many of the character-defining features associated with Brutalism and the International style, including poured-concrete construction, recessed windows that read as voids, repeating geometric patterns, strong right angles and simple cubic forms, and rectangular block-like shapes.

According to *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, a Brutalist building would need to be designed in a high-style interpretation of the style in order to meet local and state registration requirements for their architectural merit under Criterion 3.[10] Criterion 3 is applicable if a potential resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values. Further, because the subject property is less than 50 years old, it would need to be of "exceptional importance" to be eligible for the NRHP. Although the subject property was designed by a notable Modernist firm and exhibits many of the character-defining features of the Brutalist style, it is not a distinctive or outstanding example of the property type. It is not a high-style interpretation of the style, as is required by the evaluation criteria identified in *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* and does not appear eligible for local, state, or federal designation under Criteria C/3. The *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* provides multiple examples that are more representative of high-style Brutalist-influenced commercial architecture in San Francisco including: Transamerica Pyramid; Fox Plaza; Davies Medical Center; and the San Francisco State University Cesar Chavez Student Center; and an addition to the San Francisco Art Institute. Likewise, the historic context statement lists high-style examples of International-inspired commercial buildings that are more representative of the style than 2340 Stockton Street, including the Crown-Zellerbach Building, the Alcoa Building, the Bethlehem Steel Building, the John Hancock Building, and the Embarcadero Center. Due to a lack of significant associations and historic integrity, the property does not appear eligible for local, state,

---

10 San Francisco Planning Department, *San Francisco Modern Architecture and Landscape Design: 1935-1970*, Final Draft, September 30, 2010, p. 203.

or federal designation under the applicable criteria, either individually or as a contributor to a historic district.

Because ES-1 does not appear eligible for CRHR listing, it is not considered a historical resource and no analysis of known alterations made by AAU was conducted for compliance with the *Secretary's Standards for Rehabilitation.*

Archaeology and Paleontology

Building alterations at ES-1 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU postsecondary educational institutional use at ES-1 is located on the east side of Stockton Street between Beach and North Point Streets, near Pier 39 and the eastern entrance to Fisherman's Wharf. The San Francisco Municipal Transportation Agency (SFMTA) Kirkland Division Bus Yard is on the west side of Stockton Street between Beach and North Point streets. Before AAU began use of this building in 1991, the building was occupied by the Otis Elevator Company. This two-story over parking building includes approximately 44,530 gross square feet of postsecondary educational institution AAU space comprising classrooms, labs/studios, offices, and student and faculty lounges. The amount of postsecondary educational institutional use results in an estimated occupancy of up to 133 students and 11 faculty and staff members on any given day.

The first level of the building and the paved area surrounding the building include a 95-space parking lot, which is entirely leased for public use except two spaces that are reserved for AAU use. AAU uses these spaces based on the building needs, mainly to accommodate the maintenance vehicle and freight loading/unloading. The main entrance to the parking lot is on Beach Street, and one of the two driveways located on Stockton Street is used for exiting only. The other driveway on Stockton Street is not in use, and the garage operator typically parks cars as a barrier to prevent patrons from entering or exiting there. There is a main pedestrian entry midblock on Stockton Street; a secondary entry is provided in the back of the building accessible from the parking lot, used for trash disposal and parking lot access as well as emergency access. There are two bicycle racks (18 spaces) near the building entrance on the Stockton Street sidewalk and 14 standing single bicycle racks near the exit of the off-street parking lot on North Point Street, providing a total of 32 Class II bicycle parking spaces on site. AAU shuttle bus routes D and E use the 91-foot-long white passenger loading zone in front of the building, sometimes for layovers. An 80-foot long bus zone is located adjacent to the site on North Point Street, serving Muni routes 8-Bayshore, 8BX-Bayshore B Express, and 39-Coit Tower.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at this AAU site generates approximately 204 PM peak hour person trips (78 inbound trips and 126 outbound trips), resulting in 33 vehicle trips (12 inbound trips and 21 outbound trips) during the weekday PM peak hour.

Traffic

The area in the vicinity of ES-1 has mostly commercial and office uses; the SFMTA Kirkland Division Bus Yard is located directly across from the AAU site on the west side of Stockton Street between Beach and North Point streets. Stockton Street dead-ends at Beach Street adjacent to ES-1, so with the AAU use and SFMTA bus yard use on this block, traffic volume is typically light. Beach Street north of the site has moderate traffic volumes with the Muni F Market & Wharves streetcar operating on the south side of the street in the eastbound direction. Beach Street consists of one eastbound lane and two westbound lanes near ES-1. North Point Street, with one travel lane in each direction, has higher traffic volumes compared to Beach Street, with a bike lane in both eastbound and westbound directions. The parking lot on the site provides ingress and egress via a curb cut on Stockton Street and right-turn in and right-turn out only access at a curb cut on Beach Street. The Beach Street curb cut requires drivers to cross the eastbound streetcar tracks. The SFMTA operates three Muni routes (8-Bayshore, 8X-Bayshore Express, and 39-Coit Tower) along North Point Street and one street car (F-Market & Wharves) along Beach Street. AAU shuttle bus routes D and E have served this AAU site since 2010.

The following is a discussion of existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[11,12]

Stockton Street is a north-south neighborhood commercial/residential street/paseo that runs between Beach Street and Market Street. In the vicinity of ES-1, Stockton Street has one travel lane in each direction with metered, on-street parking on the east side of the street.

Beach Street is an east-west neighborhood commercial street that runs between The Embarcadero and Polk Street. In the vicinity of ES-1, Beach Street has two travel lanes in the westbound direction and one travel lane in the eastbound direction. There is an eastbound travel lane dedicated to the Muni F-Line with limited right turns permitted. There is no on-street parking on Beach Street in the site vicinity. The *San Francisco General Plan* classifies Beach Street as a Transit Conflict Street, a Transit Preferential Street (Transit Oriented Street), and a Neighborhood Pedestrian Street (Neighborhood Commercial Street).

North Point Street is an east-west residential throughway street that runs between The Embarcadero and Van Ness Avenue. In the vicinity of ES-1, North Point Street has one travel lane in each direction, with dedicated (Class II) bicycle lanes on both sides of the street. The north side of the street has metered on-street parking, and the south side of the street has unmetered (2-hour time restricted) on-street parking. The *San Francisco General Plan* classifies North Point Street as a Major Arterial in the Congestion Management Program (CMP) Network, a Transit Preferential Street (Transit Important Street), and a Neighborhood Pedestrian Street (Neighborhood Commercial Street).

The postsecondary educational institutional use at ES-1 generates approximately 33 vehicle trips (12 inbound and 21 outbound) to adjacent streets during the PM peak hour. Because off-street parking is provided on site for the public, it is reasonable to assume that a portion of these vehicles would opt to park on site while some would choose to park on the street or at other nearby off-street parking

[11] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[12] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.

facilities (such as the Pier 39 Public Parking Garage at 2550 Powell Street). Based on this level of additional vehicle traffic and likely distribution of the additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-1.

The AAU site provides three curb cuts along its border including one on the south side of Beach Street and two on the east side of Stockton Street. A white passenger loading zone used for a shuttle stop is located between the two curb cuts on the east side of Stockton Street. Potential for conflict between shuttle operations and vehicles on Stockton Street is low because the curb cut located immediately south of the white passenger loading zone is not in use and the driveway to the north is used for exiting vehicles only. The Beach Street curb cut requires drivers to cross the streetcar tracks.

Transit

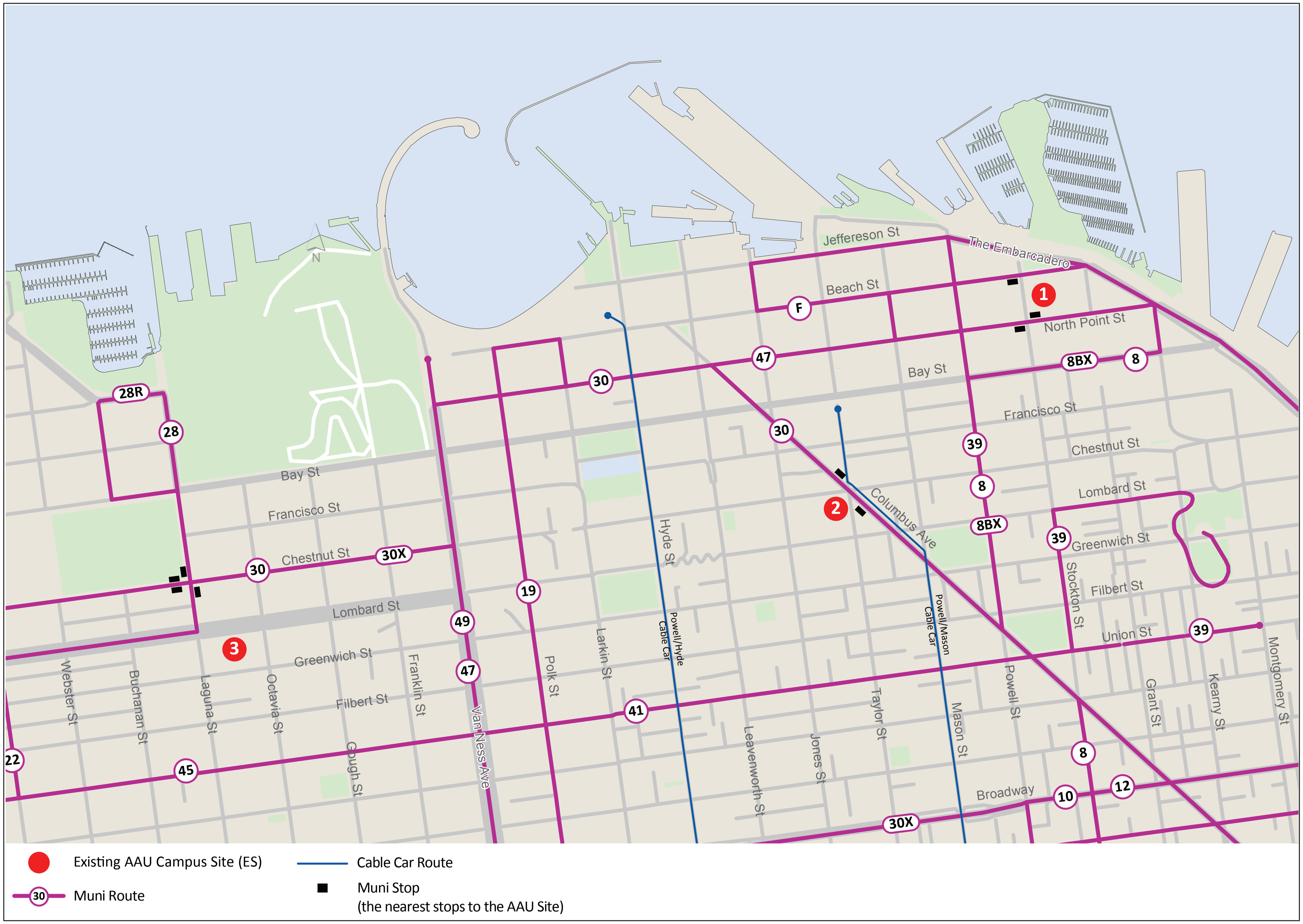
The AAU postsecondary educational institutional use at ES-1 generates approximately 103 transit riders during the PM peak hour, including 39 riders in the inbound direction and 64 riders in the outbound direction. There are several transit routes in the vicinity of ES-1. Muni bus lines 8-Bayshore, 8X-Bayshore Express, and 39-Coit Tower travel along North Point Street with frequent stops on the northeast corner (outbound) adjacent to the site and at the southwest corner (inbound) of the intersection of Stockton and North Point streets. The F-Market & Wharves street car line travels on Beach Street, along the northern border of ES-1, with the nearest stop on the southwest corner of the intersection of Stockton and Beach streets (in the eastbound direction) (see Figure 6, Muni Transit Network for ES-1, ES-2, and ES-3). Each of these stops provide a shelter with service information. The SFMTA Kirkland Division Bus Yard is located west of the AAU site. There are also 13 Golden Gate Transit bus lines (Routes 2, 4, 8, 18, 24, 27, 38, 44, 54, 58, 72, 74, and 76) that use the bus stop at the Stockton Street/North Point Street intersection.

Table 27 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the Maximum Load Point (MLP) (i.e. the point on the line where the greatest number of passengers is on board). All four Muni routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

As part of the SFMTA's Muni Forward, the following change is proposed:

- Streetcar F-Market would have reduced frequency in the morning due to the additional capacity provided by the new E-Embarcadero Line. Midday frequency would change from six to five minutes.

The 103 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-1 are distributed among several routes and could be accommodated on existing transit service based on Muni transit capacity utilization and service. Based on the location of the shuttle zone in front of the building, AAU shuttles do not substantially conflict with the operation of transit vehicles on nearby streets.



Source: CHS Consulting Group (2016)

AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 6: MUNI TRANSIT NETWORK FOR ES-1, ES-2, AND ES-3

Table 27. 2340 Stockton Street – Muni Transit Line Analysis at Maximum Load Point (MLP): Existing Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak Period	Midday Period	PM Peak Period	PM Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
8/8BX – Bayshore/ Bayshore B Express	City College to Kearny and North Point via U.S. 101	6	N/A	7	480	Geneva Ave/ Paris St	63%
39 – Coit Tower	North Point to Coit Tower Via Union	20	20	20	15	225 Telegraph Hill	11%
F – Market & Wharves	Castro to Jefferson and Jones via Market and Embarcadero	6	6	6	377	Stewart Loop	53%

Source: San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015); CHS Consulting Group.

Shuttle

The AAU postsecondary educational institutional use at 2340 Stockton Street generates approximately 27 shuttle riders during the PM peak hour, with 12 riders in the inbound direction and 15 riders in the outbound direction. Shuttle demand may be higher at other times of the day based on class schedules at this location. In 2010, when capacity utilization data was collected, this site was served by AAU shuttle bus routes D and E, which operated with 20-minute and 15-minute headways, respectively, throughout the day. The total seating capacity for these two routes was 252 seats in the PM peak hour. Both routes D and E operated at 30 percent capacity at the MLP during the PM peak hour in 2010. MLPs occurred at 860 Sutter Street on Route D and at the Cannery on Route E. During the shuttle peak hour, routes D and E operated at 64 and 63 percent capacity, respectively, at the MLP. As of spring 2015, routes D and E both operate with 20-minute headways with a reduced total seating capacity (171 seats) in the PM and shuttle peak hour, a 32 percent reduction.

Despite reduced seating capacity, based on the maximum capacity utilization rate reported in 2010 (30 percent during the PM peak hour), the estimated demand of 27 shuttle riders would be accommodated with the existing 2015 shuttle routes D and E. Spring 2015 capacity utilization data is unavailable. Appendix TR-D includes a detailed calculation of shuttle capacity utilization.

The AAU shuttle buses use the 91-foot-long white passenger loading zone on the east side of Stockton Street south of Beach Street for passenger loading/unloading. This passenger zone accommodates up to five AAU shuttle buses, and loading/unloading activity is generally limited to five minutes. AAU shuttle routes D and E lay over at the white passenger loading zone for up to 15 minutes for rest breaks. These layovers occur 16 times throughout the day and are spaced out so that no more than one shuttle bus lays-over at a given time. Therefore, lay-overs do not interfere with regular shuttle loading/unloading activity.

Stockton Street is not a designated bicycle route or transit route; thus, the AAU shuttle stop does not directly conflict with transit or bicycle traffic. Stockton Street is used by Muni buses to access the SFMTA Kirkland Division Bus Yard across from ES-1. No substantial conflicts between AAU shuttle buses and Muni buses are reported. AAU shuttle buses (for routes D and E) travel northbound on Stockton Street and use the white passenger loading zone on the east side of Stockton Street, whereas most Muni vehicles use southbound Stockton Street to turn right in and turn right out of the bus yard. With the overall low traffic volumes on this block of Stockton Street and shuttle frequency at seven AAU shuttle buses during the PM peak hour, substantial conflicts between AAU shuttle buses and transit service are not expected.

Pedestrian

The AAU postsecondary educational institutional use at the 2340 Stockton Street site generates 159 pedestrian trips, including 29 walking, 103 transit and 27 shuttle trips during the PM peak hour. The 27 shuttle walking trips are short, from the building entrance to the passenger loading zone on Stockton Street in front of the building. Intersections near the site have well-defined crosswalk markings, pavement delineations, and traffic lights, with the Stockton Street/North Point Street and the Stockton Street/Beach Street intersections having pedestrian crossing signal heads. Sidewalks along Beach Street, Stockton Street and North Point Street are approximately 8, 26, and 14 feet wide, respectively, and are lined with street trees and benches. There are three curb cuts bordering the site, with two driveways located along the east side of Stockton Street, one of which is inactive, and one driveway located on the south side of Beach Street. The primary pedestrian access to the site is provided on Stockton Street through the midblock doorway. A secondary entry is provided at the back of the building for trash disposal, parking lot access, and emergency access purposes.

Pedestrian volumes were observed to be generally low in front of ES-1, but moderate north of this site near the Pier 39 Garage and toward Fisherman’s Wharf. Pedestrians were observed to move freely in the sidewalk and crosswalk areas. There are no sidewalks along the west side of Stockton Street adjacent to the SFMTA Kirkland Division Bus Yard due to the presence of a 220-foot long driveway for the bus yard. There were no indications of overcrowding within the sidewalk areas, nor was there a considerable number of pedestrians standing outside of the AAU site or at Muni bus stop located at the North Point Street/Stockton Street intersection. Observations also noted no instances of pedestrian-vehicle conflicts at the driveways (curb cut) or crosswalk locations.[13] The 159 PM peak hour walking trips (including trips to and from transit and the shuttle stop) produced by the AAU postsecondary educational institutional use at ES-1 are accommodated on adjacent sidewalks and pedestrian facilities (crosswalks) in the vicinity. No substantial conflicts at the site are anticipated.

Bicycle

The AAU postsecondary educational institutional use at ES-1 generates six bicycle trips (including two trips in the inbound direction and four trips in the outbound direction) during the PM peak hour. Bicycle Route 2 is a Class II bicycle facility (striped bike lanes) that runs along North Point Street in

[13] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

both the eastbound and westbound directions, and provides direct access to the AAU site. This route connects to Bicycle Route 5 on The Embarcadero to the east and continues west into Park Presidio to the Golden Gate Bridge Visitor Center. There are two bicycle racks (18 spaces) near the entrance to the site on the Stockton Street sidewalk and 14 standing single cycle racks near the exit of the off-street parking lot on North Point Street, for a total of 32 Class II bicycle parking spaces on site.[14] The site's six bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a demand for approximately nine bicycle parking spaces, thus the existing bicycle parking supply (18 spaces) is sufficient to meet the peak parking demand (nine spaces).[15] No bicycle parking is required for this site under the Planning Code.[16] A recommended Condition of Approval to design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 through 155.4 is included in the Greenhouse Gas Emissions section on p. 4-39.

Loading

The AAU postsecondary educational institutional use at ES-1 generates approximately four daily truck trips, which equates to a loading demand of approximately 0.2 trips in an average hour and 0.3 trips during the peak demand hour. This site does not have any off-street loading spaces; however, commercial delivery vehicles occasionally use the on-site parking lot to make deliveries. Alternately, commercial deliveries likely utilize the 91-foot-long shuttle passenger loading zone on Stockton Street or other on-street parking. The nearest on-street commercial parking space is located on the west side of Grant Avenue south of Beach Street, approximately 700 feet east of ES-1.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU freight/delivery vehicles or related activities were observed and general commercial activity in the area was low during the observation. On-street parking spaces along these streets experience moderate to high utilization during the midday period. Trucks making deliveries to this site have to find available on-street parking spaces in the vicinity or temporarily block the driveways or passenger loading area along Stockton Street.

Garbage collection at this site occurs in the parking lot on the ground level. Collection occurs four times a week in the late night hours.

Parking

The AAU postsecondary educational institutional use at ES-1 generates a parking demand of approximately 15 parking spaces, including four spaces by faculty/staff and 11 spaces by commuter students.[17] The site consists of a building surrounded by surface parking, with a 95-space off-street parking lot leased entirely for public parking and AAU students, faculty or staff can pay to park in

---

14 Bicycle parking data was provided by AAU and verified by Planning Department staff.

15 Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate (e.g., 6*11.7/2/4=9).

16 No additional bicycle parking is required because the previous office use is more intense regarding the bicycle parking requirement.

17 Parking demand estimation assumes a daily turnover rate of 4 times a day for faculty/staff and commuter students.

the parking lot. Field observations conducted on Wednesday, July 15, 2015 (1:00 p.m. to 3:00 p.m.) show that the parking lot is full. This parking lot has access from both Stockton Street and Beach Street.

An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking near the site generally consists of time-limited, metered parking. On-street parking is prohibited along the south side of Beach Street because the curb lane is dedicated to Muni F-Market & Wharves line tracks. Table 28, 2340 Stockton – On Street Parking Supply and Occupancy (Midday Peak) summarizes on-street parking supply and weekday midday occupancy for streets near ES-1. There are a total of 14 on-street parking spaces surrounding the site. During the survey period, parking occupancy was high, averaging about 93 percent between 1:00 p.m. and 3:00 p.m.

Table 28. 2340 Stockton Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Stockton St	Beach St	North Point St	East	2	2	100%
			West	0	0	N/A
Beach St	Stockton St	Grant Ave	South	0	0	N/A
North Point St	Stockton St	Grant Ave	North	12	11	92%
Total				**14**	**13**	**93%**

Source: CHS Consulting Group, 2015.

Given the limited amount of on-street parking spaces, the locations of off-street parking within a two-block radius from ES-1 were examined. Table 29, 2340 Stockton Street – Off-Street Parking Supply**,** lists the nine public off-street parking facilities with a total of 2,383 parking spaces near the site. Parking occupancy at off-street parking facilities was not observed.

A recommended Condition of Approval to implement Transportation Demand Management strategies, reducing use of single occupant vehicles and reducing parking demand, is summarized in Chapter 3 (p. 3-28) and discussed in detail in Appendix TDM at the end of this Memorandum.

Emergency Vehicle Access

San Francisco Fire Department Station #28 (1814 Stockton Street) is the closest station to ES-1, approximately 0.3 miles south of the site. From the station, vehicles are able to access the AAU site via Powell Street or Stockton Street and would be able to park along Stockton Street or North Point Street.

Table 29. 2340 Stockton Street – Off-Street Parking Supply

Address	Type	Capacity
2550 Powell St	Garage	980
25 Beach Street	Lot	65
2210 Stockton Street	Garage	150
2291 Stockton Street	Garage	200
2340 Stockton Street	Lot	95
350 Bay Street	Garage	353
2310 Powell Street	Garage	284
2500 Mason Street	Garage	256
Total		**2,383**

Source: SFMTA SFpark, 2011; CHS Consulting Group, 2015.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints resulting from the AAU use of ES-1 include the driveway entrance/exit on Beach Street crossing the streetcar tracks. To address this constraint, the following condition is recommended for consideration by decision makers:

Recommended Condition of Approval, ES-1: TR-1, Remove curb cuts: AAU shall remove the curb cut/driveway on Beach Street and use the two existing curb cuts on Stockton Street for accessing the leased parking lot.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The AAU institutional use at 2340 Stockton Street (ES-1) is located on the east side of Stockton Street between Beach and North Point streets, near Pier 39 and the eastern entrance to Fisherman's Wharf. The SFMTA Kirkland Division Bus Yard is on the west side of Stockton Street between Beach and North Point streets. AAU shuttle routes D and E serve ES-1 and the shuttle stop serving ES-1 is in front of the building. According to the San Francisco Transportation Noise Map,[18] the existing traffic noise level near ES-1 from vehicular traffic along Stockton Street was approximately 64 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

[18] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

AAU operations at ES-1 have resulted in the installation of twelve rooftop condenser units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[19] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance standards, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior. noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU and continue to be compatible. Any noise increases from shuttle bus operations (backup beepers) are intermittent and minor.

The activities in the ES-1 building have been and continue to be required to comply with the City's Noise Ordinance (Section 2909) with respect to music and/or entertainment, or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-1 would have not exceeded the standards established by the City for noise effects on sensitive receptors in the vicinity.

Vehicular traffic noise at ES-1 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 330 trips per day.[20] According to the San Francisco Transportation Noise Map,[21] the existing traffic noise level near ES-1 from vehicular traffic along Stockton Street was approximately 64 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by AAU occupation of ES-1 contribute approximately 48.4 dBA L_{dn} to local traffic noise levels. When the contribution from ES-1 is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-1 has not substantially increased vehicular traffic noise in the Stockton Street vicinity.

Air Quality

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, offices, darkrooms) at ES-1, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1991, when AAU occupied the building. Area sources were

---

[19] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.
[20] CHS Consulting Group, AAU ESTM Transportation Section Draft #1A, January 2016.
[21] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

estimated based on a 44,530 square foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 330 round trips per day. There are no on-site generators at ES-1; there is one on-site boiler. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 1990 was conservatively assumed for ES-1. Table 30, 2340 Stockton Street Operational Emissions**,** presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-1, which are all shown to be below BAAQMD's daily and annual significance thresholds.

Table 30. 2340 Stockton Street Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.24	<0.01	<0.01	<0.01	0.23	<0.01	<0.01	<0.01
Energy	0.04	0.32	0.02	0.02	<0.01	0.06	<0.01	<0.01
Mobile	11.35	14.09	0.17	0.64	2.10	2.70	0.31	0.11
Total Emissions	12.63	14.42	0.20	0.66	2.33	2.76	0.32	0.12
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective because San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-1 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements related to design, location and configuration, is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Sections 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-1 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. AAU is in compliance with the Energy Performance Ordinance at ES-1.[22] Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Sections 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-1: GHG-1, Compliance with Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use are not considered substantial.

Wind and Shadow

The tenant improvements at ES-1 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-1.

Recreation

2340 Stockton Street (ES-1) is located within 0.25 mile of one Recreation and Park Department park, Jack Early Park, as shown on Figure 4, Parks and Recreational Facilities Within 0.25 Mile of Existing Sites, p. 3-63. Located on Grant Avenue between Francisco and Chestnut streets, Jack Early Park features a 60-step staircase, bench seating, and garden-like landscaping along the hillside.[23] ES-1 is also located adjacent to The Embarcadero and Pier 39, which includes a waterfront promenade commonly used for walking, jogging, and biking along the San Francisco Bay. Public parks within a 0.5 mile of ES-1 include Joe DiMaggio Playground and Telegraph Hill/Pioneer Park.

---

[22] Vert Energy Group, ASHRAE Level I Energy Audit, 2300 & 2340 Stockton Street, San Francisco, CA, 94113, December 15, 2002.

[23] SF Curbed, Views Galore from Atop Telegraph Hill's Jack Early Park. Available online at: http://sf.curbed.com/archives/2013/07/17/views_galore_from_atop_telegraph_hills_jack_early_park.php. Accessed on January 15, 2015

As described in Population and Housing on p. 4-22, the capacity of ES-1 is 391 occupants. The change in use from office to a postsecondary educational institution at ES-1 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Jack Early Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-1 receives water from San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water demand. Presuming the site was vacant prior to AAU occupancy, the change in use would still not substantially affect the SFPUC's water supply, because the SFPUC has determined that sufficient water is available to serve existing customers and planned future uses.[24] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-1. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply has occurred from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[25] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject

[24] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, May 2013, p. 1. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[25] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-1 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[26] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[27] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-1 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[28] Please refer to Section 3.3.12, Public Services, for additional information about SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

2340 Stockton Street has a capacity of 391 occupants (380 students and 11 faculty and staff). The change in use from offices to postsecondary educational institution would not represent a substantial change in the daytime population of the area, because the population of office space would be proximate to that of a postsecondary educational institutional use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-1.

[26] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[27] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002). Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[28] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Fire and Emergency Services

ES-1 is located within 4,000 feet north of Fire Station No. 28 (1814 Stockton Street) and Fire Station No. 2 (1340 Powell Street). Fire Station No. 28 consists of a single fire engine, and Fire Station No. 2 consists of a single fire engine and a truck.[29] Please refer to Section 3.3.12, Public Services, for additional information about SFFD.

In 2011, Fire Station No. 28 responded to 478 non-emergency calls with an average response time of 9:27 minutes, with 90 percent of non-emergency calls responded to in under 16:13 minutes. Fire Station No. 28 responded to 1,969 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to in under 4:54 minutes.[30] In 2011, Fire Station No. 2 responded to 392 non-emergency calls with an average response time of 8:57 minutes, with 90 percent of non-emergency calls responded to in under 15:44 minutes. Fire Station No. 2 responded to 1,414 emergency calls with an average response time of 3:07 minutes, with 90 percent of emergency calls responded to under 4:16 minutes.

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-1 meet the Citywide emergency transport goals.

As described above on pp. 4-22 – 4-23, the change in use from office to postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed life safety upgrades and installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result from the change in use at ES-1.

Libraries

The nearest library to ES-1 is the newly constructed North Beach Branch Library.[31] Please refer to Section 3.3.12, Public Services, for information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on pp. 4-22 - 4-23, the change in use from office to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Any change in daytime population would be minimal compared to the service population for the North Beach and Main libraries. Any new residents resulting from the change in use are dispersed throughout the City

---

29 San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

30 San Francisco Planning Department, *Academy of Art University Project Draft EIR*, February 2015, pp. 4.13-4 - 4.13-5.

31 San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.

and would use local public library branches. Therefore, no, no substantial effect on library services has occurred as a result of the change in use at ES-1.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use from office to postsecondary educational institutional use would not substantially contribute to additional demand for SFUSD facilities and staff. Overall demand for schools generated by faculty and staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-1.

Biological Resources

ES-1 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-1. ES-1 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use of ES-1.

Geology and Soils

ES-1 is underlain by artificial fill of unknown thickness associated with debris from the 1906 Earthquake and Fire.[32] Below the artificial fill is Holocene Bay Mud, which ranges in thickness from up to 120 feet to less than 1 foot around the margins of the original Bay shoreline. The Bay Mud is underlain by bedrock. Depth to groundwater is unknown, and groundwater likely flows toward the north, corresponding with topography.[33] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-1 would be violent during a magnitude 7.2 earthquake and very strong during a 6.5 magnitude earthquake originating from the San Andreas Fault or Hayward Fault, respectively.[34,35] ES-1 is

[32] Geologica, Inc., Phase I Environmental Site Assessment for 2300 Stockton Street, March 2003.
[33] Geologica, Inc., Phase I Environmental Site Assessment for 2300 Stockton Street, March 2003.
[34] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[35] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

located within a liquefaction zone.[36] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations are at an increased risk of structural failure. No seismic upgrade has been documented in building permits. ES-1 would have undergone a seismic assessment, along with any necessary remediation, by the Department of Building Inspection if a City permit was required. Several building permits have been issued during AAU's tenancy.[37] Therefore, the building is assumed to be in compliance with San Francisco Building Code requirements. ES-1 is not made of unreinforced masonry and does not have a soft-story.[38,39] Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from office to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-1 have not substantially degraded water quality, because alterations were limited to the interior or were routine exterior modifications (e.g., installation of signs on the four corners of the building and clearance bars at the parking entrance). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-1 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. Sea level rise inundation maps modeled by the SFPUC indicate that the site would not be inundated with a water level rise of approximately 12 inches, which is expected by 2050, even when the effects of a 100-year storm surge are considered.[40] In addition, the site would not be inundated with 36 inches of water level rise, which is expected by 2100; however, when the

[36] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[37] San Francisco Property Information Map, 2340 Stockton Street, Building Permits Report. Available online at http://propertymap.sfplanning.org/?dept=planning. Accessed on January 25, 2016.

[38] City and County of San Francisco, UMB – All Report, December 1, 2014.

[39] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[40] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

effects of a 25-year storm surge are considered under this scenario, portions of the building could be temporarily inundated at depths of 0–2 feet.[41] The flooding scenario assumes existing topographic conditions and no site-specific or area-wide flood protection measures. ES-1 is not located in an area that is vulnerable to tsunami risk.

Although flooding could occur, the degree is unknown and no housing occurs on the site. There are no aspects of the change in use or building alterations that have changed flood potential at the site because no new structures have been built. Further, the existing building would have been exposed to sea level rise regardless of AAU's change in use.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-1.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-1 did not identify any previous underground storage tanks or significant use of hazardous materials located at the site. However, soil and groundwater beneath the site may be affected by the neighboring SFMTA Kirkland Bus Yard.[42] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth-moving activities; therefore, no buried hazardous materials could have been exposed during the change in use.

The date of the building's construction, 1970, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the basement and on the ground floor, although there is no evidence of damage or leaks. No peeling paint was detected.[43] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-1 for lecture classrooms, labs/art studios, offices, and student and faculty lounges, as well as ground-floor parking. Hazardous materials that are used, stored, and disposed of at ES-1 include wood stain, cleaners, additives, wood finishers, paint removers, adhesives, rust inhibitor, paint dryer, paint cleaner, paint, alcohol, thinners, primer, cement, lacquer, lubricant, lighter fluid, epoxy sealer, sealant, and wax associated with the postsecondary educational institutional use.[44] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan (HMBP). Article 22 authorizes the SFDPH Hazardous Materials Unified Program

[41] Ibid.
[42] Geologica, Inc., Phase I Environmental Site Assessment for 2300 Stockton Street, March 2003.
[43] Geologica, Inc., Phase I Environmental Site Assessment for 2300 Stockton Street, March 2003.
[44] Academy of Art, Hazardous Materials Inventory List for 2300 Stockton Street, August 6, 2015.

Agency (HMUPA) to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-1 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-1 to ensure compliance with the applicable regulations. As the previous use of the building was office, hazardous materials use has likely increased as a result of the change in use. AAU has initiated HMUPA registration for ES-1.[45] AAU compliance with applicable regulations, as described above, will minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-1.

Tenant improvements at ES-1 associated with the conversion of office space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-38 – 4-39. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[46] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-1, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-1. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-1 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner. Therefore, the change in use at ES-1 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-1 is designated as "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[47] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. There is no forest land on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use of ES-1 has had no substantial effects on agriculture or forest resources.

---

45 Permit number: EPA# CAL000269271.

46 San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 2340 Stockton Street, March 4, 2016.

47 California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.2. 2295 Taylor Street (ES-2)

Property Information

The 2295 Taylor Street existing site (ES-2), also known as 701 Chestnut Street, is a 20,000-square-foot, two-story building built in 1919. ES-2 is located on Taylor Street at the southwest corner of Chestnut Street and Columbus Avenue, in the Russian Hill neighborhood (Photographs 8–11). Figure 2, ES-2: 2295 Taylor Street Site Diagram – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The building has a capacity of 10 occupants (8 students and two faculty and staff). The site is Lot 001 in Assessor's Block 0066.

The building was formerly used as a retail clothing store with a parking garage on the second floor. Prior to AAU occupation, the building was converted from the previous retail use by the San Francisco Art Institute for artistic teaching and studio space for graduate students.[48] The last legal use listed in Table 1, Summary of Uses and Required Discretionary Actions for AAU's Existing Institutional Facilities, on p. 1-5 – 1-6, was retail. AAU began occupying ES-2 in 2003 and converted the property to a postsecondary educational institution. AAU had used the space for classrooms, labs/studios, offices, and gallery space, with studio spaces on the ground floor and classroom space on the upper floor.[49] AAU vacated the second floor in October 2014 and plans to rehabilitate that space for parking.[50] AAU currently uses the first floor only, which constitutes 10,440 square feet, for graduate studios and an office.

The building site is in the North Beach Neighborhood Commercial District (North Beach NCD) and North Beach Special Use District. The North Beach NCD encourages medium-scale, mixed-use commercial-residential uses with limits on offices, automobile services, bars, restaurants, and places of entertainment. Height and bulk districts along Columbus Avenue are 40-X from Jones Street to Grant Avenue.

Tenant Improvements and Renovations

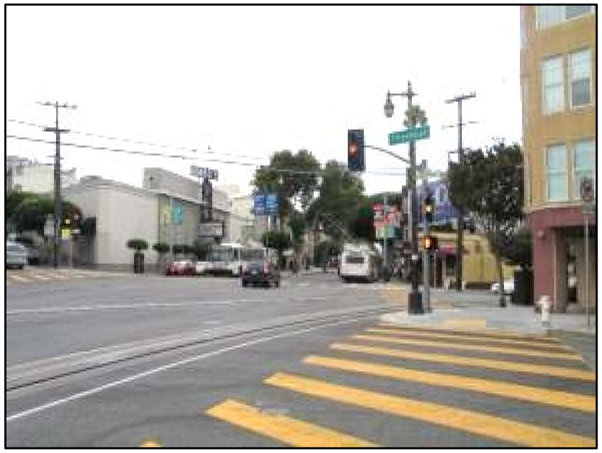
AAU painted its name and logo along the top of the building; this signage was subsequently covered over by metal plates between 2011 and 2013. On the interior, AAU made fire sprinkler and life safety improvements in 2010 without building permits.[51] Replica lighting features and metal security gates at the southernmost ground-level doors were installed in 2005 and 2007, respectively, without building permits. AAU installed two rooftop exhaust fan units without building permits.

Required Project Approvals

The 2295 Taylor Street (ES-2) site would require a conditional use (CU) authorization under San Francisco Planning Code (Planning Code) Sections 178(e)(5) (already a principal permitted use on

48 *2011 IMP*, p. 85.
49 *2011 IMP*, p. 85.
50 E-mail correspondence with Julie Jones (Perkins Coie) on November 9, 2015.
51 Building Permits obtained for the improvements and renovations at ES-2 are: Building Permit Applications (BPA) #201301248668 (sign removal), #201008189002 and #201005051799 (sprinkler improvements and life safety improvements, permits never issued).

Photograph 8. 2295 Taylor Street (ES-2).



Photograph 9. Columbus Avenue at Taylor Street, facing northwest.

Photograph 10. Chestnut Street at Columbus Street, facing west.

Photograph 11. Main entryway to ES-2.

the first floor) and a building permit under Planning Code Section 171 to change the use from retail to a postsecondary educational institution. A CU authorization under Planning Code Section 722.56 is also required to reestablish the parking lot on the second floor, since this use was vacated to be used as an institutional use. Should institutional use be established on the second floor, a legislative amendment to Planning Code Sections 121.2(b), Use Size Limits, and 722.21, Use Size, would be required to authorize AAU to operate a non-residential use over 4,000 square feet in the North Beach NCD. A building permit is required for any tenant improvements to the building that were without the benefit of a permit.

Plans and Policies and Land Use

ES-2 is located in the North Beach neighborhood of San Francisco. In the immediate vicinity of ES-2 there are a mix of land uses including residential, commercial, medical, and entertainment. The land use is predominantly residential away from Columbus Avenue. The ES-2 building was built in 1919, is two stories, and was previously used as a Gap retail store and an artist studio space for the San Francisco Art Institute. The last legal use was retail. A parking garage was also located on the second floor.

ES-2 is situated on Columbus Avenue, which runs diagonally through the North Beach neighborhood. The street is one of two diagonal arteries that bisect San Francisco (Market Street is the other). Columbus Avenue is an active street lined with cafes and restaurants and heavily traveled by pedestrians, vehicles, bicycles, and public transit. The Powell/Mason Street cable car line and multiple Muni bus lines use Columbus Avenue. Bus stops are located at the north- and south-eastern intersections of Columbus Avenue and Taylor Street. Parallel parking is limited to 2 hours for non-residential cars on both sides of Taylor Street, whereas metered parking is available on Columbus Avenue.

Columbus Avenue is the heart of the North Beach neighborhood. North Beach functions as a neighborhood-serving marketplace, Citywide specialty shopping, and dining district, and a tourist attraction, as well as an apartment and residential hotel zone. A concert venue and comedy club are located along Columbus Avenue to the north and south of ES-2, respectively. Other land uses in the vicinity include a nail salon, several restaurants and bars, a convenience store, and a small retail clothing store. Generally, the upper stories are occupied by apartments and residential hotels. Directly across Columbus Avenue from ES-2 is a medical office building and North Beach Housing – Hope IV Development (affordable and senior housing).

The zoning along Columbus Avenue near ES-2 is the North Beach NCD. The North Beach Neighborhood Commercial District controls are designed to ensure the livability and attractiveness of North Beach as an eating, drinking, shopping, and entertainment district. Small-scale, neighborhood-serving businesses are strongly encouraged and formula retail uses are prohibited. Special controls are necessary because an over-concentration of food and beverage service establishments limits neighborhood-serving retail sales and personal services in an area that needs them to thrive as a neighborhood.[52] In addition, ES-2 is located in the North Beach Special Use District, which is similar to the North Beach Neighborhood Commercial District, as it attempts to preserve and maintain the mix and variety of neighborhood-serving retail sales and personal services

[52] Planning Code Section 722.

of a type which supplies commodities or offers personal services to residents of North Beach and nearby neighborhoods.[53] Height and bulk districts along Columbus Avenue are 40-X from Jones Street to Grant Avenue.

As noted above, the use of ES-2 has been changed by AAU from retail garage to a postsecondary educational institutional use. AAU had used the space for classrooms, labs/studios, offices, and a gallery. AAU vacated the second floor in October 2014 and plans to rehabilitate that space for parking. AAU currently uses the first floor only for graduate studios and an office. The change in use of the existing structure involved limited exterior alterations, including the installation of signs (which have since been covered), described above under Tenant Improvements and Renovations.

The use of ES-2 as a postsecondary educational institution could potentially conflict with the North Beach Neighborhood Commercial District and North Beach Special Use District. Both zoning control measures attempt to provide neighborhood-serving retail along with an adequate amount of entertainment, dining, and drinking establishments. However, institutional uses are permitted with Conditional Use Authorization.

Land use size limits for non-residential properties are limited to 1,999 square feet within the North Beach NCD. The AAU facility encompasses 10,440 square feet of postsecondary educational instruction use, more than ten times the non-residential property use constraints. Existing properties are allowed to continue at these existing use sizes as non-conforming uses; however, they cannot expand.

Postsecondary educational institutional use are allowed on the first floor and subject to approval by the Planning Commission as a conditional use on the second floor within the North Beach NCD. ES-2 would also require conditional use permits, pursuant to Planning Code Section 178(e) and Section 722.81. ES-2 would need a building permit pursuant to Planning Code Section 171. Therefore the ES-2 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-2 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-2 is 10 occupants (8 students and two faculty and staff). The change in use may indirectly result in new residents of San Francisco due to student and employment growth at the site. Occupation by AAU may have resulted in displacement of employees; however, retail space was likely found elsewhere. Conservatively presuming that ES-2 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be

[53] Planning Code Section 780.3.

insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[54]

The change in use at ES-2 from retail to a postsecondary educational institution would have minimally changed the daytime population because the building, as an artist studio for San Francisco Art Institute, likely had a comparable capacity. No substantial effect on population has occurred from the change in use at ES-2.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-2 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from retail to a postsecondary educational institution at ES-2 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-2 did not result in the displacement of housing because this site was previously used as retail.

Aesthetics

ES-2 is located in the North Beach neighborhood, which is directly across Columbus Avenue. ES-2 was built in 1919 and was originally constructed as a garage and later was converted to an automotive repair shop. The building is two stories, has a stucco façade, and storefront display windows. A roll-up garage door is located on the northeast façade of the building. There are seven mature trees along Chestnut and Taylor streets that minimize the building massing and create shade. Buildings near ES-2 are primarily moderate-scale residential with ground-floor commercial uses.

ES-2 is located on the diagonal Columbus Avenue, which is a bustling neighborhood-serving commercial street. The abundance of public transit, bicycles, and active ground-floor uses along the street creates a substantial amount of pedestrian traffic in the vicinity. Muni cable cars, buses, pedestrians, bicyclists, and personal vehicles all coincide at the three-way intersection of Columbus Avenue, Chestnut Street, and Taylor Street, which adds to the visual environment.

Much of the streetscape is dominated by moderate-scale residential buildings with neighborhood-serving retail and restaurant uses on the ground floor. Mature street trees line both sides of Columbus Avenue that shade and minimize building massing. Buildings on the street have no setback, creating a continuous, urban façade. Due to the contrasting building construction timeframes in the vicinity, a variety of architectural styles that include differing building materials and patterns, window patterns, and rooflines are present. ES-2 is located on and viewable from Columbus Avenue, which is designated as a street that defines City form and is important for significant building viewing.[55] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses

[54] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages /productview.xhtml?src=CF. Accessed February 2, 2016.

[55] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-2 has caused minimal visual changes to the building and neighborhood. Student artwork has been placed in the display windows and an AAU logo has been painted on the ground in front of the main entry. Nevertheless, AAU signage on ES-2 is comparable to the visual character of the area. Advertising located on signs, billboards, awnings, bus stops, and pole banners is prevalent within the neighborhood. The larger signage on the second story of the building façade has been covered. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-2.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The building at 2295 Taylor Street (ES-2) was constructed in 1919 as a private garage. The building was converted into an automotive repair shop in the early 1950s, then into a commercial space by 1970, and then into an educational facility by the San Francisco Art Institute in 1993. The building has a rectangular plan and is set flush to the sidewalk on a rectangular, sloped lot, with a primary elevation facing Taylor Street and secondary elevations facing Chestnut Street and the neighboring property to the west. The building has minimal Mission Revival details and is a two-story building capped with a flat roof and a parapet with a shallow copping at the eaveline. Constructed of reinforced concrete, board-formed concrete is visible around the building. Located at the northeast corner of the building is a recessed entryway with non-original aluminum glass double-doors that is flanked by a transom and large storefront windows, and set at a 45 degree angle to face the corner of the block. The east elevation is divided into five bays by columns with a larger center bay. The columns rise just above the parapet and are capped with a shallow copping. Two sets of non-original large three-part storefront windows are located immediately east of the main entry. To single metal personnel doors are located on the southern bays of the elevation. The second floor features a vertical band rectangular fixed-glass windows; three in the smaller bays and nine in the center bay. The northern most bay has an in-filled recessed panel instead of windows. A projecting cornice is featured on the northern, southern, and center bay above the second story windows.

Secondary elevations are visible on the north and west elevations. The north elevation features three bays, divided by the same columns as seen on the primary elevation. The eastern bay contains the recessed main entry on the ground floor with three fixed-glass windows above. The projecting cornice turns the corner from the primary elevation and continues on the eastern bay of the north elevation. The larger central bay features a stepped parapet and two small, original rectangular multi-light windows above the second story. The western bay has a large roll-up door with an inset personnel door and a multi-light transom window. Above the door is the projecting cornice line. The western elevation facing the alley space has no fenestration or openings (for representative photographs refer to Photographs 12 and 13).

Site History

The building at 2295 Taylor Street was originally designed by Perseo Righetti for Edward Cerruti in 1919. Edward Cerruti was the owner of Cerruti Mercantile Company and had the building at 2295 Taylor originally constructed as a two-story reinforced concrete garage.

Perseo Righetti was a local architect for the San Francisco Italian community. Righetti partnered with H.P. Kuhl prior to 1909 and with A. Headman from 1909 to 1914. He is most known for design of the 414 Mason Street (Native Sons of the Golden West Building #2, 1911–1912) and 1239 Main Street, Angels Camp (Calaveras County Bank, 1900).[56]

Photograph 12. 2295 Taylor Street.

Photograph 13. 2295 Taylor Street, detail of main entry.

The Willig Brothers operated the garage from 1929 to 1936. The Willig Brothers employed D.W. Ross, builder, to complete the construction of a ramp from the first to the second floor and to remove some interior walls. In 1937 the owner is listed as a Mrs. J. Brownstone, who employed Alfred F.

[56] Judith Cunningham. National Register Nomination for Calaveras County Bank, 1984.

Fisher to “close up five panels with terra cotta tile and install one 550 gallon tank.” From 1961 to 1963 Gurley Lord operated General Tires, renamed Gurley Lord General Tires in 1963, in the building.[57]

As of 1966 Sid Patron was listed on the owner when a wall was installed between the public repair garage and business occupancy for an automotive supply store named Autotorium.[58] Donald Fisher owned the building from 1970 to 1972 when the building was converted to retail space for ArtMart in 1970, and for the Gap in 1971. The Gap occupied the space through at least 1983.[59] Prior to AAU’s occupation of the property in 2003, it was adapted for use as an educational facility by the San Francisco Art Institute in 1993.[60]

California Register of Historical Resources Evaluation

Review of the North Beach Survey materials indicates that 2295 Taylor (ES-2) was identified during a reconnaissance-level phase of the survey and classified as “3, Contributing – Altered.” No other information was included about the subject property, and as of 2015, it does not appear to have been subject to intensive-level survey or evaluation. The 1980s North Beach Survey identified the building as altered, and primary-source and archival research carried out for this evaluation confirms this finding. Alterations include the in-filling of original wall openings (which appear to have been sized for automobiles) along the ground story on the east elevation, the removal and replacement of original fenestration, and the in-filling of second-story windows.

In addition to meeting the applicable CRHR eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the “ability of a property to convey its significance.”[61] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The property no longer retains most of the character-defining features associated with an automotive-related property and does not meet the registration requirements for automotive support structures as defined in the Van Ness Auto Row Historic Context Statement.[62] In addition, the property does not reflect an intact, representative commercial storefront building. The number and degree of modifications to the building over time have compromised its historic integrity and ability to convey its significance. Originally designed as an automotive garage, the property retains few character-defining features to convey this association. Based on site inspections and archival research, it also does not appear that the modifications made to the property over time have acquired significance in

[57] Building Permit 246785 and 257054.
[58] San Francisco Chronicle Autotorium, Advertisement, July 28, 1966.
[59] San Francisco Chronicle, ArtMart, Advertisement, July 5, 1970; San Francisco Chronicle, The Gap, Advertisement, August 11, 1983.
[60] City and County of San Francisco Planning Department. Executive Summary Conditional Use, Case No.: 2007.1079 C, 2295 Taylor Street (AKA 701 Chestnut Street). San Francisco Planning Department, San Francisco, December 9, 2010.
[61] National Park Service, National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, National Register Branch, 1990.
[62] William Kotsura, “Van Ness Auto Row Support Structures,” 2010. Prepared for the City and County of San Francisco Planning Department.

their own right. Due to a lack of significant associations and historic integrity, the property does not appear eligible for local, state, or federal designation under the applicable criteria, either individually or as a contributor to a historic district.

Because ES-2 does not appear eligible for CRHR listing, it is not considered a historical resource and no analysis of known alterations made by AAU was conducted for compliance with the *Secretary's Standards for Rehabilitation.*

Archaeology and Paleontology

Building alterations at ES-2 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the building's exterior and interior, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU postsecondary educational institutional building at ES-2 is located on the southwest corner of Columbus Avenue, Chestnut Street, and Taylor Street in the North Beach neighborhood. The site is located in the North Beach NCD. The previous use of the building was retail, tire sales and a Gap clothing store, with some subsequent use by the San Francisco Art Institute. The building includes approximately 10,440 gross square feet of postsecondary educational institutional use comprised of art studios and office.[63] This site is analyzed as accommodating up to 51 students and two faculty and staff members on any given day, based on its capacity; however, the site typically houses about eight students and two faculty. Therefore, the transportation analysis is conservative.

No vehicle parking is provided on site; the site includes an active loading dock with a roll-up door on the south side of Chestnut Street. There is a main pedestrian entry to the building in the southwest corner of the Chestnut Street and Taylor Street intersection, and a secondary entry is provided on the south side of Chestnut Street for access to the loading dock. There are two bike racks with a total of 14 bicycle parking spaces provided on the first floor of the building. AAU shuttle bus routes D and E provided service to this site until 2014, using an available curb space (including the existing Muni bus stop located on the east side of Columbus Avenue north of Chestnut Street) or double parking along the east side of Columbus Avenue, if necessary to let a passenger board or offload. Since the vacation of the second floor of the building in October 2015, there has been very little shuttle use for this location, and consequently the stop has been removed as of April 18, 2016.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at ES-2 generates approximately 91 person trips (35 inbound trips and 56 outbound trips) and 6 vehicle trips (two inbound trips and four outbound trips) during the weekday PM peak hour.

[63] Both floors of this site, 20,000 sq. ft., were originally used by AAU, but the second floor is no longer in use; the transportation analysis assumes the entire 20,000 sq. ft. were used by AAU, resulting in a more conservative analysis.

Traffic

The area in the vicinity of ES-2 has mostly commercial uses along Columbus Avenue, and residential buildings along Chestnut and Taylor streets. Traffic volumes along Chestnut and Taylor streets are generally light, but moderate during the commute hours. Traffic volumes are generally moderate to heavy along Columbus Avenue, which is a main street connecting Downtown San Francisco with Fisherman's Wharf and Bay Street, and a major route to the Golden Gate Bridge. Columbus Avenue in the vicinity of ES-2 has cable car tracks operating in the curb lanes. Access to the off-street loading dock is provided on the south side of Chestnut Street via a roll-up door. The San Francisco Municipal Transportation Agency (SFMTA) operates two Muni routes (30-Stockton and Powell-Mason cable car) along Columbus Avenue. AAU shuttle bus routes D and E travel along Columbus Avenue and has used the Muni bus stop on the northeast corner of the Columbus Avenue and Chestnut Street intersection as a shuttle stop for this AAU site since 2010.

The following presents a discussion of existing roadway systems in the vicinity of ES-2, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[64, 65] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[66]

Chestnut Street is an east-west neighborhood residential street that runs between The Embarcadero and Lyon Street. In the vicinity of ES-2, Chestnut Street has one lane in each direction and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies Chestnut Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street) between Fillmore Street and Richardson Avenue, and as a Transit Preferential Street (Secondary Transit Street) between Van Ness Avenue and Richardson Avenue.

Columbus Avenue is a north-south street/commercial throughway that runs between Beach and Washington streets. In the vicinity of ES-2, Columbus Avenue has two lanes in each direction and metered parking on both sides of the street. Cable car tracks are in the curb travel lane of Columbus Avenue between Mason Street and Taylor Street. The *San Francisco General Plan* classifies Columbus Avenue as a Major Arterial in the CMP Network, a Transit Preferential Street (Transit Important Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Columbus Avenue is designated as a High Injury Corridor in the City's Vision Zero network.

Taylor Street is a north-south neighborhood residential and commercial street that runs between The Embarcadero and Market Street. In the vicinity of ES-2, Taylor Street has one travel lane in each direction and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* classifies Taylor Street as a Transit Oriented Street.

The AAU site generates approximately 15 vehicle trips (five inbound and ten outbound) to adjacent streets during the PM peak hour. With this amount of additional vehicle traffic, traffic operating conditions in the site vicinity have not been substantially altered as a result of AAU's use of ES-2. AAU shuttle and loading circulation is further discussed below.

---

[64] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[65] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[66] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

Transit

The AAU postsecondary educational institutional use at ES-2 generates approximately 46 transit trips during the PM peak hour, including 17 trips in the inbound direction and 29 trips in the outbound direction. ES-2 is served by Muni bus lines 30-Stockton and the Powell-Mason cable car line, both of which travel along Columbus Avenue in the vicinity of the site. The nearest bus stop to the AAU site is located at the northeast corner of Columbus Avenue/Chestnut Street intersection which serves the 30-Stockton line (see Figure 6, Muni Transit Network for ES-1, ES-2, and ES-3, p. 4-31). This stop does not provide a shelter or service information.

Table 31, 2295 Taylor Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour**,** presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the Maximum Loading Point (MLP) during the PM peak hour. The 30-Stockton route operates below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour (capacity utilization for cable car line is not available).

Table 31. 2295 Taylor Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	AM Peak	PM Peak Hour Capacity Utilization
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
Powell-Mason	Fisherman's Wharf to Powell and Market via Mason and Powell	10	8	8	N/A	N/A	N/A

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 30-Stockton would increase frequency east of Van Ness Avenue during AM peak from 4 to 3.5 minutes and west of Van Ness Avenue from 8 to 7 minutes.

The 46 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-2 are distributed to several routes and are accommodated on existing transit service based on Muni transit capacity utilization and service.

Shuttle

The AAU postsecondary educational institutional use at 2295 Taylor Street generates approximately 12 shuttle riders during the PM peak hour with about six riders in each direction. Shuttle demand may be higher at other times of the day based on class schedules at this location. In 2010, this site was served by AAU shuttle bus routes D and E with 20-minute and 15-minute headways, respectively, throughout the day. The total seating capacity at that time for these two routes was 252 seats in the PM peak hour. Both routes D and E at that time operated at 30 percent capacity at the MLP in 2010 during the PM peak hour. During the AAU shuttle peak hour, routes D and E operated at 64 and 63 percent capacity, respectively, at the MLP. MLPs occurred at 860 Sutter Street on Route D and at the Cannery on Route E. Appendix TR-D includes a detailed calculation of shuttle capacity utilization.

In 2010, the AAU shuttle buses (routes D and E) travelled along Columbus Avenue in the northbound direction and used an available curb space (including the existing Muni bus stop located on the east side of Columbus Avenue north of Chestnut Street) or double parked along the east side of Columbus Avenue, if necessary to let a passenger board or offload. Since the vacation of second floor of the building in October 2014, there has been very little shuttle use of this location and AAU shuttle slowed down to check for any passengers and then briefly parked in available curb space or double parked along the east side of Columbus Avenue. Consequently, the shuttle stop was removed as of April 18, 2016.

Pedestrian

The AAU postsecondary educational institutional use at ES-2 generates 71 pedestrian trips, including 13 walking, 46 transit and 12 AAU shuttle trips during the PM peak hour. Columbus Avenue is designated as a High Injury Corridor under the City’s Vision Zero Improvement Plan. Intersections near the AAU site have well-defined crosswalk markings, pavement delineations, and traffic lights. The intersection of Columbus Avenue and Chestnut Street also has a pedestrian crossing signal head. Sidewalks along Chestnut Street, Taylor Street and Columbus Avenue are approximately 14 feet wide, and are lined with street trees. There is a curb cut for the loading dock driveway on the south side of Chestnut Street. The primary pedestrian access to the site is from the southwest corner of Chestnut Street and Taylor Street through the doorway. A secondary entry is provided along Chestnut Street for loading dock access as well as service and emergency access.

Pedestrian volumes were observed to be generally low in the vicinity of the AAU site and pedestrians were observed to move freely in the sidewalk and crosswalk areas. The land uses in the area are mostly residential with ground-floor retail and hotels, which do not attract a considerable amount of pedestrian activity. There were no indications of overcrowding on the sidewalks, nor was there a considerable number of pedestrians standing outside of the AAU site or at the Muni bus stop located at the Columbus Avenue/Chestnut Street intersection. Observations also noted no instances of pedestrian-vehicle conflicts at the loading driveway (curb cut) or crosswalk locations.[67] The 71 PM peak hour walking trips (including trips to and from transit and the AAU shuttle stop) produced by the AAU postsecondary educational institutional use at ES-2 are able to be accommodated on adjacent sidewalks and pedestrian facilities (crosswalks) in the site vicinity. No substantial conflicts at the site are anticipated.

[67] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

Bicycle

The AAU postsecondary educational institutional use at ES-2 generates three bicycle trips including one trip in the inbound direction and two trips in the outbound direction during the PM peak hour. Bicycle Route 11 is a Class III bike route that runs along Columbus Avenue and provides direct access to the site. This is a north-south route and connects to Route 2 to the north, which runs along North Point Street and to AT&T Park to the south. There are two bike racks on the first floor of the building with a total of 14 Class II bicycle parking spaces.[68] The site's three bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand for approximately four spaces, which is generally accommodated in the existing bicycle parking spaces.[69] No bicycle parking is required for this site under the Planning Code.[70] A recommended Condition of Approval to design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4 is included in the Greenhouse Gas Emissions section on pp. 4-63 – 4-64.

Loading

The AAU postsecondary educational institutional use at ES-2 generates approximately two daily truck trips, which equates to a loading demand of approximately 0.1 trips in an average hour or during the peak demand hour. This site has a functioning off-street loading dock with a roll-up door fronting the south side of Chestnut Street. There are no on-street freight (yellow) or passenger loading (white) spaces adjacent to the site. The nearest yellow freight loading space is located on the west side of Columbus Avenue south of Lombard Street, approximately 500 feet southeast of the site.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no freight/delivery vehicles or related activities occurred during the observation. No AAU freight/delivery vehicles or related activities were observed and general commercial activity in the area was low to moderate during the observation. According to AAU, this site receives commercial deliveries sporadically throughout the day and commercial loading activities typically take place on available parking spaces nearby. On-street parking spaces along the adjacent streets experience moderate to high parking utilization during the midday period. Given the existing loading dock at ES-2, the site is able to accommodate the estimated demand of two daily truck trips. Due to the low daily delivery activity at this site as reported by AAU and the available off-street loading facility, loading demand at this site does not present a substantial constraint on the AAU use at this location.

Garbage collection occurs on the south side of Chestnut Street, located next to the service entrance/loading dock for the building. Trash receptacles are picked up at the loading dock twice a week in the early morning hours.

---

[68] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[69] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate (e.g., 6*11.7/2/4=9).

[70] No additional bicycle parking is required because previous retail use is more intense in regard to bicycle parking requirement.

Parking

The AAU postsecondary educational institutional use at ES-2 generates a parking demand of approximately six parking spaces (one space by faculty/staff and five spaces by commuter students). The site does not provide any off-street parking spaces. An on-street parking survey along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) was conducted on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking adjacent to the site generally consists of time-limited (2-hour), unmetered parking. Table 32, 2295 Taylor Street – On-Street Parking Supply and Occupancy (Midday Peak)**,** summarizes on-street parking supply and weekday midday occupancy for streets near ES-2. There are a total of 44 on-street parking spaces surrounding the site. During the survey period, parking occupancy was moderate to high, averaging about 80 percent between 1:00 p.m. and 3:00 p.m. Therefore, only a limited amount of on-street parking is available for AAU employees who chose to drive to ES-2. Paid off-street parking may be available at a few parking lots or garages in the area including at 601 Bay Street, 701 Lombard Street, and 455 Northpoint Street.[71] Encouraging AAU to reduce staff and faculty vehicle trips and parking demand as a recommended Condition of Approval is part of the Transportation Demand Management strategies discussed in Chapter 3 (p. 3-28) and presented in detail in Appendix TDM at the end of this Memorandum.

Table 32. 2295 Taylor Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Chestnut St	Jones St	Taylor St	South	11	8	73%
Taylor St	Chestnut St	Lombard St	West	10	8	80%
			East	8	9	113%
Lombard St	Jones St	Taylor St	North	15	10	67%
Total				**44**	**35**	**80%**
Note: Parking utilization above 100 percent indicates double parking or other illegal activity.						

Source: CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Station #28 (1814 Stockton Street) is the closest station to ES-2, approximately 0.4 miles east of the site. From the station, vehicles are able to access the site via Chestnut Street or Columbus Avenue and would be able to park along Chestnut Street or Taylor Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, there are no substantial transportation constraints on the AAU use of ES-2 other than a limited amount of parking available to meet demand. To address this constraint

[71] SF OpenData, Off street Parking Lots and Parking Garages, September 2011. Available online at https://data.sfgov.org/Transportation/Off-Street-parking-lots-and-parking-garages/uupn-yfaw. Accessed on February 16, 2016.

and reduce staff and faculty vehicle trips, a recommended Condition of Approval to implement Transportation Demand Management strategies is summarized in Chapter 3 (p. 3-28) and described in detail in Appendix TDM at the end of this Memorandum,

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on p. 3-46 – 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The AAU institutional use at 2295 Taylor Street (ES-2) is located in North Beach in the North Beach Neighborhood Commercial District, on the southwest corner of Columbus Avenue, Chestnut Street, and Taylor Street. This site accommodates up to 96 students and 9 faculty/staff members when both floors of the building were used, but presently is used by about 8 students and 2 faculty/staff on a typical day. According to the San Francisco Transportation Noise Map,[72] the existing traffic noise level near ES-2 from vehicular traffic along Columbus Avenue, Chestnut Street, and Taylor Street was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU operations at ES-2 have resulted in the installation of two exhaust fan units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[73] As previously discussed under in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City’s daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City’s nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site’s rooftop mechanical systems would not meet or exceed the noise limits established in the City’s noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased AAU shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU and continue to be compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-2 building would have been and continue to be required to comply with the City’s Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-2 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-2.

---

[72] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

[73] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.

Vehicular traffic noise at ES-2 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 150 trips per day.[74] According to the San Francisco Transportation Noise Map,[75] the existing traffic noise level near ES-2 from vehicular traffic along Stockton Street and North Point Street was approximately 74 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by AAU occupation of ES-2 contribute approximately 45 dBA L_{dn} to traffic noise levels. When the ES-2 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-2 has not substantially increased vehicular traffic noise in the vicinity.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, offices, and gallery) at ES-2, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2003, when the AAU occupied the building. Area sources were estimated based on a 20,000-square-foot[76] "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 150 round trips per day. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 2000 was conservatively assumed for ES-2. There are no on-site generators or boilers at ES-2. Table 33, 2295 Taylor Street (ES-2) Operational Emissions, presents the estimated long-term operational of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-2, which are all shown to below BAAQMD's daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-2 is not one of those sites; therefore, AAU occupation of ES-2 has not resulted in increased health risks for nearby sensitive receptors.

---

74 CHS Consulting Group, AAU ESTM Transportation Section Draft #1A, January 2016.
75 San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
76 Since the transportation analysis was completed, AAU reduced their occupation of ES-2 to only one floor. AAU currently occupies 10,440 square feet. However, to be conservative, the analysis and results of the air quality study have as not been changed to reflect the change in square footage.

Table 33. 2295 Taylor Street (ES-2) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.56	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.01
Energy	0.02	0.15	0.01	0.01	<0.01	0.03	<0.01	<0.01
Mobile	2.44	4.07	0.80	0.27	0.44	0.77	0.14	0.05
Total Emissions	3.01	4.21	0.81	0.28	0.54	0.80	0.14	0.05
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Note

[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-2 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-2 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-2: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Section 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use are not considered substantial.

Wind and Shadow

The tenant improvements at ES-2 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-2.

Recreation

As shown on Figure 4, p. 3-63, 2295 Taylor Street (ES-2) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) parks: Joe DiMaggio Playground, Michelangelo Playground, and Fay Park. Joe DiMaggio Playground, located at 651 Lombard Street, recently renovated and re-opened in November 2015, features an indoor pool and clubhouse, children's play area, seating, tennis courts, bocce courts, picnic area and sports courts.[77] Michelangelo Playground, located on Greenwich Street between Jones and Leavenworth streets, includes a playground, basketball court and grass picnic area.[78] Fay Park, located at 2366 Leavenworth Street, is a small 0.25 acre park featuring three garden terraces and two gazebos. Other publicly owned parks are within a 0.5-mile distance of ES-2, including Russian Hill Open Space and Telegraph Hill/Pioneer Park.

As described in Population and Housing on p. 4-50, the capacity of ES-2 is 10 occupants. The change in use from retail to postsecondary educational institution at ES-2 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Joe DiMaggio Playground, Michelangelo Playground, and Fay Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter

[77] San Francisco Recreation and Parks, Joe DiMaggio Playground Improvement Project. Available online at: http://sfrecpark.org/project/joe-dimaggio-playground/. Accessed on January 15, 2015.
[78] San Francisco Recreation and Parks, Michelangelo Playground. Available online at: http://sfrecpark.org/destination/michelangelo-playground/. Accessed on January 15, 2015.

Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-2 receives water from the SFPUC water supply facilities. The site had water service and consumption associated with the previous retail land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[79] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-2. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[80] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-2 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is

---

[79] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[80] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

in the process of implementing new strategies to meet its zero waste goal by 2020.[81] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[82] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-2 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[83] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff members are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

2295 Taylor Street has a capacity of 10 occupants (8 students and two faculty and staff). The change in use from retail to a postsecondary educational institution within North Beach NCD would not represent a substantial change in the daytime population of the area, as the population of San Francisco Art Institute artist studio space, retail, and parking garage would be proximate to that of a postsecondary educational institutional use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-2.

Fire and Emergency Services

ES-2 is located within 2,500 feet of Fire Station No. 28 (1814 Stockton Street) and Fire Station No. 2 (1340 Powell Street). Fire Station No. 28 consists of a single fire engine, and Fire Station No. 2

---

[81] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[82] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[83] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

consists of a single fire engine and a truck.[84] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 28 responded to 478 non-emergency calls with an average response time of 9:27 minutes, with 90 percent of non-emergency calls responded to in under 16:13 minutes. Fire Station No. 28 responded to 1,969 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to in under 4:54 minutes.[85] In 2011, Fire Station No. 2 responded to 392 non-emergency calls with an average response time of 8:57 minutes, with 90 percent of non-emergency calls responded to in under 15:44 minutes. Fire Station No. 2 responded to 1,414 emergency calls with an average response time of 3:07 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes.

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-2 meet the Citywide emergency transport goals.

As described above on p. 4-50, the change in use from retail to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-1.

Libraries

The nearest public library to ES-2 is the newly constructed North Beach Branch Library.[86] Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU’s private library for use by its students and faculty, which augments the public library’s services.

As described above on p. 4-50, the change in use from retail to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Any change in daytime population would be minimal compared to the service population for the North Beach Branch and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU’s private library system. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-1.

[84] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[85] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

[86] San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use to a postsecondary educational institution would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has occurred as a result of the change in use at ES-2.

Biological Resources

ES-2 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-2. ES-2 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. No substantial effect on biological resources has occurred as a result of the change in use at ES-2.

Geology and Soils

A Phase I Environmental Site Assessment (ESA) or Geotechincal Investigation was not prepared for ES-2; however, the site is expected to have soil and groundwater conditions similar to those at nearby ES-1 (2340 Stockton Street). ES-2 is likely underlain by artificial fill of unknown thickness associated with debris from the 1906 Earthquake and Fire. Below the artificial fill is Holocene Bay Mud, which ranges in thickness up to 120 feet to less than 1 foot around the margins of the original Bay shoreline. The Bay Mud is underlain by bedrock. Depth to groundwater is unknown, and groundwater likely flows north, corresponding with topography.[87] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-2 would be violent during a magnitude 7.2 earthquake and very strong during a 6.5 magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[88,89] ES-2 is

[87] Geologica, Inc., Phase I Environmental Site Assessment for 2300 Stockton Street, March 2003.

[88] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[89] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

located within a liquefaction zone.[90] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations are at an increased risk of structural failure. ES-2 is composed of wood with a stucco façade and is not a soft story building or made of unreinforced masonry.[91,92] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from retail to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-2 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of replica lighting features and metal security gates). Regardless, wastewater and stormwater associated with the change in use at ES-2 and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-2 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[93] ES-2 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-2.

---

[90] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[91] City and County of San Francisco, UMB – All Report, December 1, 2014.

[92] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[93] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

Hazards and Hazardous Materials

Phase I ESA was not prepared for ES-2. A search of Department of Toxic Control's Envirostor and the State Water Resources Control Board's Geotracker did not identify any underground storage tanks (USTs) at the site.[94] It seems unlikely that significant historic use of hazardous materials would have occurred, because the building was primarily used as retail and institutional uses. However, the space was used for car repair and an automotive supply store for approximately 15 years. Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1919, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Prior to building alterations, materials were tested for ACM and LBP and no ACMs were detected, although some LBP was discovered on interior concrete surfaces.[95] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-2 is currently used for graduate studios and an office (first floor only). Hazardous materials that are used, stored, and disposed of at ES-2 include approximately 90 gallons of aqueous parts washer solution associated with the postsecondary educational institutional use.[96] The products are stored in hazardous materials drums; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[97] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan (HMBP). Article 22 authorizes the SFDPH Hazardous Materials Unified Program Agency (HMUPA) to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-2 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-2 to ensure compliance with applicable regulations. ES-2 is enrolled in the SFDPH HMUPA Program.[98] As the previous use of the building was retail, hazardous materials use has likely increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

---

94 State Water Resources Control Board, Geotracker, 2295 Taylor Street. Available online at http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=2295+taylor+street%2C+san+francisco%2C+ca+. Accessed on January 29, 2016.

95 RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 2295 Taylor Street, June 10, 2010.

96 Academy of Art, Hazardous Materials Inventory List for 701 Chestnut Street, August 6, 2015.

97 Academy of Art, Hazardous Materials Inventory List for 701 Chestnut Street, August 6, 2015.

98 Permit numbers: EPA# CAR000149039; CERS# 10062187.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-2.

Tenant improvements at ES-2 associated with the conversion of retail space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, on p 4-63 – 4-64. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[99] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-2, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU used to provide shuttle service at locations ES-2. The nearest AAU shuttle stop is now 2340 Stockton Street (ES-1). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-2 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-2 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-2 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[100] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-2 has had no substantial effects on agriculture or forest resources.

---

[99] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 2295 Taylor Street, March 4, 2016.

[100] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.3. 1727 Lombard Street (ES-3)

Property Information

The 1727 Lombard Street existing site (ES-3) is a 16,371-square-foot, two-story building constructed in 1960, located on Lombard Street between Laguna and Octavia streets, in the Marina District (Photographs 14–17). The building has 52 group-housing rooms and a capacity for 81 students (81 beds). The site is Lot 036 in Assessor's Block 0506.

Prior to Academy of Art University (AAU) occupation in 2007, the building was known as the Star Motel.[101] AAU currently uses the building as student housing. ES-3 also includes a common room, laundry facilities, and a manager's office with a kitchen.[102] There is surface parking between the two wings of the building, accessed from Lombard Street. The 45-space parking lot is not available for students and is used occasionally by faculty and staff. A basketball hoop and several tables and chairs are located in the lot for recreational purposes. The parking area is a through lot that extends from Lombard Street, under a portion of the building, to Greenwich Street where there is a second driveway. Figure 3, ES-3: 1727 Lombard Street – Existing Condition, in Appendix TDM, shows the site and its driveway and curb cuts. As of 2015, the site is served by AAU shuttle bus route M. AAU shuttle buses use the 25-foot-long white general on-street passenger loading zone on the south side of Lombard Street between Laguna and Octavia streets for passenger loading.

The portion of the site facing Lombard Street is zoned NC-3 (Moderate-Scale Neighborhood Commercial and the portion of the site fronting Greenwich Street is zoned RH-2 (Residential, House, Two-Family). Retail and residential uses are principally permitted in NC-3 Zoning Districts RH-2 Zoning Districts are intended for one- and two-family homes, but also allows single room occupancy and student housing as principal permitted uses, with a conditional use (CU) authorization required for more than two units per lot. Height and bulk districts in the entire Marina neighborhood are 40-X excluding small portions along Van Ness Avenue.

Tenant Improvements and Renovations

AAU added metal security gates and garage doors in 2008 to ES-3.[103]

Required Project Approvals

The 1727 Lombard Street (ES-3) existing site would require a CU authorization under San Francisco Planning Code (Planning Code) Section 209.1 and Section 303 and a building permit under Planning Code Section 171 to change the use from a tourist motel to student housing (group housing for a postsecondary educational institution) use within NC-3/RH-2 Zoning Districts. A CU application was filed for this building in December 2012 and building permit filed in January of 2013; both of which are currently under review. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

---

[101] *2011 IMP*, p. 95.
[102] *2011 IMP*, p. 95.
[103] Building Permit obtained for the improvement and renovation at ES-3: BPA #200803197518 (gates and garage door).

Photograph 14. 1727 Lombard Street (ES-3).

Photograph 15. Lombard Street at Laguna Street, facing southeast.

Photograph 16. Lombard Street at Octavia Street, facing northwest.

Photograph 17. Surface parking lot at ES-3.

Plans and Policies and Land Use

ES-3 is located in the Marina neighborhood. In the immediate vicinity of ES-3 there are a mix of uses including commercial, hotel, residential, and medical. Commercial uses include a gas station, restaurants, dog groomer, a spa, and other small ground-level retail operations. Many of the buildings have residential uses above the ground floor. Building heights are relatively low and range from one to four stories.

Lombard Street near ES-3 is an east-west arterial that is co-signed as U.S. Highway 101 until Broderick Street, where it transforms into Richardson Avenue and eventually Doyle Drive before it reaches the Golden Gate Bridge. Lombard Street serves as an important connection for Golden Gate Transit and various Muni bus routes. Near ES-3, Lombard Street has three lanes in each direction with a planted median. Parallel parking is available on both sides of the street. A white passenger loading zone is provided directly in front of ES-3 along Lombard Street.

Lombard Street, from the Presidio to Van Ness Avenue, is one of the busiest streets in San Francisco. As a major arterial through San Francisco, Lombard Street's dominant feature is the concentration of motels and hotels that cater to motorists, along with some complimentary neighborhood-serving retail and restaurants. The majority of hotels and motels were built between 1941 and 1970. The Lombard Street corridor is the main thoroughfare for residents commuting into San Francisco from Marin County and serves approximately 83,000 vehicles per day.

The zoning near ES-3 is RH-2 (Residential, House, Two-Family) and NC-3 (Moderate-Scale Neighborhood Commercial). The NC-3 Zoning District is located on either side of Lombard Street, whereas the RH-2 Zoning District is south of ES-3 and corresponds to the residential neighborhood of Cow Hollow. RH-2 Zoning Districts are devoted to one-family and two-family houses, with the latter commonly consisting of two large flats, one often occupied by the owner and the other available for rental. Structures are finely scaled and usually do not exceed 25 feet in width or 40 feet in height.[104] NC-3 Zoning Districts are intended in most cases to offer a wide variety of comparison and specialty goods and services to a population greater than the immediate neighborhood, additionally providing convenience goods and services to the surrounding neighborhoods. NC-3 Zoning Districts are linear districts located along heavily trafficked thoroughfares that also serve as major transit routes. A diversified commercial environment is encouraged for the NC-3 Zoning District, and a variety of uses are permitted with special emphasis on neighborhood-serving businesses.[105] Height and bulk districts in the entire Marina neighborhood are 40-X (a maximum of 40 feet tall and no bulk limits) except small portions along Van Ness Avenue. Lombard Street near ES-3 is part of the Invest in Neighborhoods initiative that aims to strengthen commercial districts, improve physical conditions, increase quality of life, and community capacity.[106]

As noted above, the use of ES-3 has been changed by AAU from a tourist motel to group housing for a postsecondary educational institution. The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. The

[104] Planning Code Section 209.1.
[105] Planning Code Section 712.
[106] *Invest in Neighborhoods San Francisco, Lombard Street*. Available at http://investsf.org/neighborhoods/lombard/. Accessed on October 12, 2015.

change in use of the site from a tourist motel to group housing for a postsecondary educational institution would conform to the residential characteristics of the RH-2 zoning located to the south of Lombard Street, and corresponds to the variety of uses found in NC-3 Zoning Districts. Student housing is subject to Conditional Use Authorization in the RH-2 and NC-3 Zoning Districts.

The change in use would not physically divide an established community; rather, localized changes to perceived communities could change as short-term motel guests would be replaced with longer-term student residents. The change in use at ES-3 would not conflict with any plans or policies. Change in use would not change the scale of development or character of the neighborhood. ES-3 would require a Building Permit pursuant to Planning Code Section 171. Therefore the ES-3 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-3 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-3 is 81 residents (52 group-housing rooms). The change in use from a tourist motel to student housing (group housing for a postsecondary educational institution) has not substantially altered the daytime population of the building because the previous use as a motel would have had a comparable capacity. The change in use from tourist motel to student housing created a more permanent change to population compared to tourists who would vacate the rooms after a short period of time. Conservatively presuming that ES-3 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[107] No substantial effect on population has occurred from the change in use at ES-3.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The change in use at ES-3 from a tourist hotel to student housing (group housing for a postsecondary educational institution) provides a dense housing option for students that could alleviate some pressure on Citywide housing demand, as the previous hotel use did not provide any housing opportunities. In addition, if AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). The effects on

[107] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

housing demand would be minimal, as the capacity is limited to 81 beds. No substantial effect on housing demand has occurred from the change in use of ES-3.

Aesthetics

ES-3 is located in the Marina neighborhood and fronts Lombard and Greenwich streets. The two-story-tall building was constructed in 1953 and expanded in1960, and was historically used as the Star Motel. The Star Motel is a mid-century-era motel built in an architectural style that was common along Lombard Street after World War II. The building is essentially a U-shape that surrounds the surface parking lot that is accessed from Lombard Street. Typical of motels along Lombard Street, doors to the rooms face the surface parking lot. Several mature street trees line both sides of Lombard Street creating shade and reducing the visual impact of building massing.

As the thoroughfare for US Route 101, Lombard Street became the home of a significant number of motels and restaurants, serving thousands of motorists and tourists visiting and travelling through San Francisco, and is a major roadway linking Van Ness Avenue and the Golden Gate Bridge. The three travel lanes in each direction and the median create a sense of openness and exposure. The auto-oriented experience is dominated by asphalt, motel signage, and billboards.[108] Lombard Street adjacent to the site carries a high volume of traffic at almost all times of the day and week. The urban character and density of development generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

Buildings generally adjoin one another with no side setbacks, forming a continuous street wall. However, the surface parking lot associated with ES-3 and the gas station located at the corner of Lombard and Laguna streets interrupt the continuity of the street wall on this block. The buildings on the subject block are primarily small- and moderate-scale residential buildings with neighborhood-serving ground-floor retail. The buildings display a variety of building materials and patterns, window patterns, and rooflines.

The change in use at ES-3 has caused minimal visual changes to the building or neighborhood. The Art Deco “Star Motel” sign and the color of the building remain the same as they were prior to AAU occupation. The only exterior alteration indicative of AAU use is the advertising located in the front three windows of the lobby along Lombard Street. Nevertheless, AAU signage on ES-3 is comparable to the visual character of the area. Advertising located on signs, awnings, bus stops, billboards, and pole banners is prevalent in the neighborhood. No other exterior changes are attributable to the AAU use. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-3.

---

[108] *Invest in Neighborhoods San Francisco, Lombard Street*. Available at http://investsf.org/neighborhoods/lombard/. Accessed on October 12, 2015.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

1727 Lombard Street (ES-3) is a large irregularly shaped mid-block parcel that faces Lombard Street and has a through-lot connection to Greenwich Street. A large motor court is located in the center of the property and is ringed by two wings of guest rooms (east and west wings) with a third wing extending south through the block (south wing). All three wings are two stories. The east wing has a reverse “L”-shaped footprint, and the west wing has an upside down “L”-shaped footprint. There is no setback, and these wings directly abut the front (Lombard Street) and side lot lines. The south wing has a rectangular footprint that fills most of the through-lot parcel but is set slightly back from Greenwich Street. A freestanding “Star Motel” neon blade sign is located on Lombard Street at the automobile entrance to the motor court. A low stucco wall with brick end piers divides the motor court from the Lombard Street sidewalk. A second “Star Motel” sign is mounted on the wall. The freestanding sign was moved to its current location in 1960 and the neon replaced in 1992; the wall sign was most likely added in 1960 as well (Star Motel Postcard). A planting bed is located in front of the wall. A modern metal fence with automobile and pedestrian gates flanks and tops the wall and spans between the east and west wings along Lombard Street. The motor court is paved with asphalt and is divided by planters and low plaster columns with globe lights. All of the original steel windows have been replaced with vinyl sliding windows with false muntins. Configurations include tripartite window with a central fixed sash and sliding sash on either side, one-over-one sash with obscure glazing, and two-part sliding sash. Air-conditioning units have been installed below many of the windows. Modern metal sconces have been mounted on the walls. Overall, the motel conveys the Mid-Century Modern style with features such as stacked brick dadoes, projecting cornice with board-and-batten siding, flat roofs, deep eaves, wraparound galleries, corner window, open riser stairways, neon sign, and wall sign (Photographs 18–20).

Photograph 18. 1727 Lombard Street.

Photograph 19. Eastern wing (1953), Star Motel, 1727 Lombard Street

Photograph 20. Rear (south) façade, Star Motel, 1727 Lombard Street

Site History

Prior to the construction of the Star Motel at 1727 Lombard Street (ES-3), the subject property contained dwellings and flats and, later, an automobile garage. The Star Motel was constructed in 1953 by the Commercial Construction Company, an entity that shared the same Daly City address as the property's original owners, the Star Motel Company. Two stories in height and U-shaped in plan, the Star Motel originally displayed a utilitarian design, with Spanish Colonial Revival and Minimal Traditional-style influences. An expansion of the motel in 1960 added two buildings to the west and south of the original building. Also two stories in height, the new south and west buildings, which reflect a modernist influence, were designed by San Francisco architects L.H. Skidmore & J.M. McWilliams.

California Register of Historical Resources Evaluation

The former Star Motel at 1727 Lombard Street (ES-3) appears to be eligible under CRHR Criterion 1 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The Star Motel and the broader thematic historic district reflect a noteworthy mid-century shift in the character of Lombard Street, catalyzed by the completion of the Golden Gate Bridge in 1937. Along with Park Presidio Boulevard (State Route 1), the Lombard Street corridor (U.S. Route 101) from Van Ness Avenue at the east to Richardson Avenue at the west was a principal thoroughfare for interstate traffic heading to and from the Golden Gate Bridge. This development pattern, coupled with subsequent widening and redevelopment of Lombard Street beginning in 1941, brought a dramatic increase in tourist traffic to Lombard Street. This triggered both the need for—and demand for—traveler- and car-friendly motels along the corridor. The earliest motel built on Lombard Street was the Marina Motel at 2576 Lombard Street, constructed in 1940. Between 1955 and 1960, the number of motels in San Francisco doubled (tripled by 1975). Of the 58 that existed in 1960, half were on or near Lombard Street or the northern stretch of Van Ness Avenue. This significant pattern of development had a direct and still discernible effect on the character of these 13 blocks of Lombard Street, as seen in its concentration of tourist motels.

The following is a list of extant motels on Lombard Street that have been identified as potential contributors to a potential thematic historic district of 1940–1960s tourist motels on Lombard Street. This list should be viewed as preliminary. Further research on Lombard Street motels is recommended.

- Marina Motel, 2576 Lombard Street (1940)
- Murray’s Golden Gate/La Luna Inn, 2555 Lombard Street (1951)
- Holland Motel/Knight’s Inn, 1 Richardson Street (1952)
- Star Motel, 1727 Lombard Street (1953)
- Golden Gate Travelodge/Travel Inn, 2230 Lombard Street (1954)
- Bel Aire Motel/Greenwich Inn, 3201 Steiner Street (1954)
- Lombard Plaza Motel, 2026 Lombard Street (1955)
- Presidio Travelodge, 2755 Lombard Street (1955)
- Plantation Inn/Hotel del Sol, 3100 Webster Street (1956)
- Motel Capri, 2015 Greenwich Street (1957)
- Motel De Ville/La Luna Inn, 2599 Lombard Street (1957)
- Surf Motel, 2265 Lombard Street (1959)
- Lanai Motel/Presidio Inn, 2361 Lombard Street (1959)
- Doyle Motel/Travelodge by the Bay, 1450 Lombard Street (1968)

This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district.

The property at 1727 Lombard Street appears ineligible for the CRHR under Criterion 2. It appears that none of the owners or managers of 1727 Lombard Street have made any significant contributions to local, state, or national history.

The former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criterion 3 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The property embodies the distinctive characteristics of a unique type and period of architecture in San Francisco: mid-century-era tourist motels. The Star

Motel exhibits many of the character-defining features of tourist motels constructed in the City during this period: U- and L-shaped wings surrounding a central motor court; two-story massing; open galleries and stairs facing motor court, with rooms opening off galleries; deep, overhanging roof eaves over walkways; period details, including brick dado walls; and a neon blade sign. The building also exhibits typical alterations present in many historic motels across San Francisco: replacement windows; replacement railings at galleries; modified paint scheme; security fencing; and altered signage. However, in spite of these alterations, the property retains features important at a district level, such as original massing, configuration, and central motor court.

This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district.

Character-Defining Features Summary

Exterior

- "L"-shaped wings
- Central motor court
- Two-story height
- Deep eaves sheltering open galleries
- Open-riser exterior stairways
- Repetitive fenestration pattern typical of motels
- Metal railings around galleries and stairways
- "Star Motel" neon blade sign
- "Office" neon sign
- Stucco and brick wall with "Star Motel" sign
- Planting beds
- Intersecting gable and hipped roofs clad in Spanish clay tile
- Cement plaster cladding and wood drop siding
- Stacked brick dadoes
- External plaster-clad chimney
- Flat roof
- Projecting cornice with board-and-batten siding
- Cement plaster wall cladding
- Corner window South Wing
- Flat roof with exposed beams
- Concrete block walls at first floor and cement plaster wall cladding at second floor [[need access to property to verify this]]

- Open parking garage entrances at north and south façades
- Open corridor

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Fencing and Gates: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and is therefore in compliance with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 2. The introduction of fencing and gates does not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 3. The security fencing and gates are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 5. The property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 9. The security fencing and gates do not obscure any character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security fencing and gates do not obscure any character-defining features, and their removal would not result in any impairment to the building.

Conclusion

The project complies with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-3 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU residential buildings at ES-3 are located on the south side of Lombard Street, between Octavia and Laguna streets in the Marina neighborhood. The 25,465-square-foot parcel is located in neighborhood commercial and residential districts. The last registered use in the approximate 16,371-square-foot, two-story buildings was a 53-unit tourist motel (the Star Motel). The four buildings AAU is using include 16,371 gross square feet of housing with 52 group housing rooms, with a total of 81 beds.

This AAU site includes a 45-space parking lot and a garage with access from both U.S. 101 / Lombard Street and Greenwich Street. Students are not permitted to bring private vehicles to the site. The parking lot is occasionally used by select faculty and staff members who are authorized to park at the site, including athletics personnel, outreach personnel, and executive staff members. An auto museum car-hauling truck is also parked at this site. The primary pedestrian access to the site is from Lombard Street through the gate in the fence installed by AAU at the property line on Lombard Street. There is a secondary entry in the back of the site from Greenwich Street via staircase, which is used for entry and exit to the second floor of the building. There are two bicycle racks with 16 total spaces located in the parking lot. AAU shuttle bus route M uses the 25-foot-long shuttle-only stop located on the south side of Lombard Street in front of the site. An AAU shuttle-only stop is a white passenger loading zone reserved for exclusive use by AAU shuttles during the hours of shuttle operation.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27**,** the residential use at ES-3 generates approximately 61 person trips (28 inbound trips and 33 outbound trips) and no vehicle trips during the weekday PM peak hour.[109]

[109] AAU students are not permitted to have vehicles at AAU residential sites; therefore, the analysis assumes no vehicle trips for the student housing use.

Traffic

There are eight AAU sites clustered in the Cow Hollow and Pacific Heights neighborhoods, along Lombard Street, Van Ness Avenue, and Octavia Street: one site along Lombard Street (1727 Lombard Street [ES-3]), five sites along Van Ness Avenue (2211 Van Ness Avenue [ES-4], 2209 Van Ness Avenue [ES-5], 2151 Van Ness Avenue [ES-6], 1849 Van Ness Avenue [ES-8], and 950 Van Ness Avenue [ES-10]), and one site along Octavia Street (1916 Octavia Street [ES-9]). The following includes a discussion of existing roadway systems in the vicinity of the AAU sites in this area, particularly focusing on ES-3. Subsequent site discussions will summarize and refer back to these discussions where conditions are the same, or discuss differences where appropriate.

Lombard Street in the vicinity of ES-3 has a mixture of office, retail, hotel, and residential and institutional uses. Lombard Street is a major commercial thoroughfare, connecting Doyle Drive and the Golden Gate Bridge with Downtown San Francisco. Traffic volume is heavy during the weekday AM and PM peak periods as well as on weekends. The parking lot on the site provides ingress and egress via curb cuts on Lombard Street and Greenwich Street. The San Francisco Municipal Transportation Agency (SFMTA) operates two Muni routes (28-19th Avenue, 28R-19th Avenue Rapid) along Lombard Street and Laguna Street and two routes (30-Stockton, and 30X-Marina Express) along Chestnut Street. AAU shuttle bus routes M and Q served this location in 2010; only route M serves this site in 2015.

The following presents a discussion of existing roadway systems in the vicinity of ES-3, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[110,111] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[112]

Lombard Street is an east-west commercial throughway that runs discontinuously from The Embarcadero to the Presidio, and is part of the U.S. 101 arterial from Van Ness Avenue to the Golden Gate Bridge. Lombard Street has three travel lanes in each direction and unmetered (2-hour time restricted) parking in the vicinity of ES-3. The *General Plan* classifies Lombard Street as a Major Arterial in the CMP Network; it is also part of the Metropolitan Transportation Systems (MTS) Network, a Transit Preferential Street (Transit Important Street), and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Lombard Street is designated as a High Injury Corridor in the City's Vision Zero network.

Octavia Street is a north-south neighborhood residential street that runs discontinuously from Bay Street to Market Street. It has one travel lane in each direction and unmetered (2-hour time restricted) parking in the vicinity of ES-3.

Laguna Street is a north-south street that runs from Bay Street to Market Street. It has one travel lane in each direction and unmetered (2-hour time restricted) parking in the vicinity of ES-3.

---

[110] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[111] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[112] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

The student housing use at ES-3 is not expected to generate a substantial amount of additional vehicle trips to adjacent streets during the PM peak hour because residential students are discouraged from driving private automobiles. Therefore, traffic operating conditions in the project vicinity have not been altered by the student housing residential use at this AAU site as a result of AAU's use of ES-3.

The AAU site provides three curb cuts along its border including two on the south side of Lombard Street and one on the north side of Greenwich Street. A white passenger loading zone used for the AAU shuttle stop is located between the two curb cuts on the south side of Lombard Street. Potential conflict between shuttle operations and vehicles on Lombard Street is low due to low volumes of traffic generated by the site. Simplifying vehicle access by reducing driveways is recommended and further discussed below.

Transit

The AAU student housing use at ES-3 generates low transit usage, approximately three transit trips (one in the inbound direction and two in the outbound direction) during the weekday PM peak hour. This is primarily due to resident students utilizing AAU shuttles, including on weekends. In the vicinity of ES-3, Muni bus routes 28-19th Avenue and 28R-19th Avenue Rapid travel along Lombard Street and Laguna Street (primarily for service to Fort Mason and the western portion of the City), and routes 30-Stockton and 30X-Marina Express operate along Chestnut Street. Transit connections to downtown are within two to three blocks on the 41-Union, 45-Union-Stockton, 47-Van Ness and 49-Van Ness-Mission Muni routes. The nearest bus stops to the AAU site are located at the Chestnut Street/Laguna Street intersection, one block (300 feet) north of the site, and inbound and outbound stops at the Laguna Street/Lombard Street intersection. The bus stops located on Chestnut Street serve the 30-Stockton and 30X-Marina Express lines, and the bus stops located on Laguna Street serve the 28-19th Avenue and 28R-19th Avenue Rapid lines (see Figure 6, Muni Transit Network for ES-1, ES-2, and ES-3). These stops provide shelters and signage with transit information.

Table 34 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the Maximum Load Point (MLP) during the PM peak hour. Five Muni routes (28-19th Avenue, 30-Stockton, 45-Union-Stockton, 47-Van Ness, and 49-Van Ness/Mission) operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour, and two Muni routes (30X-Marina Express and 41-Union) operate above 85 percent capacity utilization (data for 28R-19th Avenue Rapid is not available).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 28–19th Avenue would increase frequency during the AM and PM peak from 10 to 9 minutes and during midday from 12 to 9 minutes.
- Route 28R–19th Avenue Rapid would operate seven days a week from 6:00 a.m. to 8:00 p.m. with 9-minute headway during AM and PM peak periods.
- Route 30-Stockton would increase frequency east of Van Ness Avenue during AM peak from 4 to 3.5 minutes and west of Van Ness Avenue from 8 to 7 minutes.
- The Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent (this project has been approved). Proposed improvements include dedicated transit-only lanes for use by Muni and Golden

Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

Table 34. 1727 Lombard Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
28 – 19th Avenue	Daly City BART Station to Fort Mason via Doyle Drive and 19th Avenue	10	12	10	264	19th Ave/ Judah	69%
28R – 19th Avenue Rapid	Daly City BART Station to Fort Mason via Doyle Drive and 19th Avenue	10	10	12	N/A	N/A	N/A
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
30X – Marina Express	Transbay Terminal to Marina via Chestnut, Broadway, and Market	5	N/A	7	463	Sansome St/ Washington St	85%
41 – Union	Lyon and Union to Howard and Main via Union, Columbus, Main and Beale	5	6	N/A	8	Union St/ Columbus Ave	90%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
47 – Van Ness	Caltrain Depot to Beach Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The three transit trips generated by the AAU student housing use at ES-3 are distributed to several routes and can generally be accommodated on existing transit service. Although two Muni routes (30X-Marina Express and 41-Union) operate above Muni's standard capacity utilization, as shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, on p. 3-30, the increased transit demand, even in combination with transit trips from other AAU locations, is not a substantial contribution to the existing transit service. Based on the location of the shuttle zone in front of the building, AAU shuttles have not substantially conflicted with the operation of transit vehicles on nearby streets.

Shuttle

The AAU student housing use at ES-3 generates approximately 35 shuttle riders during the PM peak hour, with 16 riders in the inbound direction and 19 riders in the outbound direction. In 2010, this site was served by two AAU shuttle bus routes, M and Q, with 60-minute and 30-minute headways, respectively, throughout the day. The total seating capacity at that time for these two routes was 113 seats in the PM peak hour. Routes M and Q, in 2010, operated at 44 and 29 percent capacity, respectively at the MLP during the PM peak hour. During the AAU shuttle peak hour, routes M and Q operated at 81 and 96 percent capacity, respectively at the MLP. MLPs occur at 860 Sutter Street on Route M and at 1849 Van Ness Avenue on Route Q. As of spring 2015, one AAU shuttle bus route M serves this site with 20-minute headways and a 72-seat capacity over the PM peak hour, a 36 percent reduction. Spring 2015 capacity utilization data is unavailable.

Given the known capacity of the AAU shuttle route serving ES-3, the 35 shuttle riders during the PM peak and shuttle peak hours should be accommodated with the existing shuttle service. However, since this route also serves other residential and academic buildings, a Condition of Approval to assess and monitor AAU shuttle bus ridership and capacity utilization, particularly of route M, is recommended below. If additional shuttle capacity utilization is needed to serve this site, increasing shuttle frequencies or shuttle bus size are examples of how this could be achieved.

In 2010, the AAU shuttle buses used the 25-foot-long white general on-street passenger loading zone in front of the site on Lombard Street. This on-street passenger loading zone has since been designated as a shuttle-only passenger loading zone, with a “No Parking Shuttle Bus Zone” sign posted on a pole by the white zone. The hours of operation for the AAU shuttle bus zone are between 8:00 a.m. and 12:00 a.m. Monday through Saturday and from 7:00 a.m. to 9:00 p.m. on Sunday. The AAU shuttle bus routes serving the site lay over at the shuttle-only passenger loading zone for up to 15 minutes for rest breaks. These layovers are spaced out so that no more than one bus lays-over at a given time. Observations during the midday period noted that there were no instances of shuttle buses double parking or stopping within the traffic lane on Lombard Street, and passengers were able to board and alight at ease.[113]

Lombard Street is not a designated bicycle route. Therefore, the AAU shuttle stop does not directly conflict with bicycle traffic.[114] Lombard Street is used by Muni lines 28-19th Avenue and 28R-19th Avenue Rapid with the combined frequency of every five to six minutes during the PM peak hour. AAU shuttle buses were observed to fully pull into the designated AAU shuttle bus zone without substantial conflicts with Muni transit vehicles.

Pedestrian

The AAU student housing use at ES-3 generates 59 pedestrian trips, including 21 walking, three transit and 35 shuttle trips during the PM peak hour. The 35 shuttle walking trips are short in length

---

[113] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.
[114] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

from the building entrance to the shuttle zone on Lombard Street in front of the site. Lombard Street is designated as a High Injury Corridor under the City's Vision Zero Improvement Plan.[115] Intersections along Lombard Street near the AAU site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Lombard Street/Laguna Street and the Lombard Street/Octavia Street intersections have pedestrian crossing signal heads. Sidewalks along Laguna Street, Lombard Street, and Octavia Street are approximately 15, 10, and 16 feet wide, respectively, and Lombard Street is lined with street trees. There are three curb cuts for the site, with two driveways for the parking lot located along the south side of Lombard Street and a driveway extending through the site to Greenwich Street. The primary pedestrian access to the site is from Lombard Street through the fenced gate located west of the driveway. A secondary entry is provided from Greenwich Street via a staircase, which is used for entry and exit from the second floor of the building.

Pedestrian volumes were observed to be generally low to moderate in the vicinity of the AAU site and pedestrians were observed to move freely within the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of the AAU site. Adjacent pedestrian facilities accommodate the estimated 59 pedestrian trips (including to and from shuttle and transit service). The gates at the driveways were closed during the observation period, and no instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations were observed.[116] Limited vehicle activity at this student housing site is anticipated. As part of the recommended Condition of Approval for pedestrian improvements below, AAU should explore whether a mid-block pedestrian pathway could be established at this mid-block location to replace the driveway leading to Greenwich Street.

Bicycle

The AAU student housing land use at ES-3 generates two bicycle trips, including one trip in each inbound and outbound direction, during the PM peak hour. Lombard Street is not a designated bicycle route; however, Route 6 (Class III) runs on Greenwich Street to the south and Route 106 (Class III) on Octavia Street. There are two bike racks located in the northwest portion of the parking lot with a total of 16 Class II bicycle parking spaces.[117] The arrangement of the existing racks (in an L-shape) limits their use to perhaps 50 percent of their capacity and the type of rack is not recommended in the SF Planning Department's guidance (due to its narrower tubed material making it more prone to theft by cutting through the rack). In fact, the bicycles parked along the rack were observed to park parallel to the rack instead of the designed perpendicular parking, in order to be able to lock to the thicker portion of the rack. The site's two PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand for approximately six spaces, and they are generally accommodate in the existing bicycle parking spaces.[118] However, pursuant to Section 155.2, the 81-bed student housing use at ES-3 is required to

[115] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.
[116] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.
[117] Bicycle parking data was provided by AAU and verified by Planning Department staff.
[118] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

provide 20 Class I bicycle and three Class II spaces.[119] Therefore, a Condition of Approval related to improved and expanded bicycle parking is recommended below.

Loading

The AAU student housing use at ES-3 generates limited freight loading demand (less than one daily truck trip). There are no on-street freight loading (yellow) spaces adjacent to the site and the site does not include any off-street loading spaces. It is likely that the infrequent commercial deliveries to the site utilize on-street parking spaces, when available, use the shuttle passenger loading zone, or temporarily block the driveway curb cut to make a delivery.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU-related freight/delivery vehicles or related activities were observed in front of the site along Lombard Street. General commercial activity in the area is low and includes occasional delivery truck trips for other residential uses in the area. On-street parking spaces along these streets experience moderate parking utilization during the midday period, which indicates that curb spaces are generally available on Lombard Street for loading activities. Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU student housing use as noted during observation has not substantially altered commercial loading conditions in the project vicinity

Garbage collection at the site occurs in the parking garage. The garbage truck enters through the gate on Greenwich Street. Collection occurs three times a week in the early morning hours.

Parking

Students are not permitted to park private vehicles at student housing sites by AAU policy, and no staff or faculty are located at ES-3.[120] Therefore, the AAU student housing use at ES-3 is not expected to generate parking demand on a regular basis. The site includes a 45-space parking lot, which is occasionally used by select faculty and staff members who are authorized to park at the site, including athletics personnel, outreach personnel, and executive staff members.[121] An auto museum car-hauling truck is also parked at the site. Field observations conducted on Wednesday, July 15, 2015 (1:00 p.m. to 3:00 p.m.) indicate approximately half of the parking lot was occupied with private vehicles and a couple of service vans.

Although use of the site has not resulted in a regular increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J**.**

---

[119] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

[120] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed on April 20, 2016.

[121] Parking is grated to faculty and staff on a case-by-case basis through the executive office.

On-street parking near the site generally consists of time-limited (2-hour), unmetered parking. Table 35 summarizes on-street parking supply and weekday midday occupancy for streets near ES-3. There are a total of 29 on-street parking spaces surrounding the site. During the survey period, parking occupancy is generally full, averaging about 86 percent between 1:00 p.m. and 3:00 p.m.

Table 35. 1727 Lombard Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Lombard St	Laguna St	Octavia St	South	13	10	77%
Laguna St	Lombard St	Greenwich St	East	7	7	100%
Octavia St	Lombard St	Greenwich St	West	9	8	89%
Total				**29**	**25**	**86%**

Source: CHS Consulting Group, 2015.

To increase the amount of on-street public parking, a Condition of Approval is recommended and further discussed below to remove two of the three vehicle access driveways (one along Lombard Street and one along Greenwich Street). The existing parking lot is underutilized and does not require more than one driveway for access. The closure of these driveways and removal of curb cuts would result in an additional two or more on-street public parking spaces in this moderate to high parking demand area.

An off-street parking inventory is presented for the study area generally defined as a two-block radius from 1727 Lombard Street. Table 36 shows that there are two public off-street parking facilities with a total of 69 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 36. 1727 Lombard Street – Off-Street Parking Supply

Address	Type	Capacity
701 Lombard St	Lot	40
601 Bay St	Lot	29
Total		**69**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Station #16 (2251 Greenwich Street) is the closest station to ES-3, approximately 0.4 miles west of the site. From the station, vehicles are able to access the AAU site via Lombard Street and would be able to park along Lombard Street or on-site in the parking lot.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of the site include a potential need for additional shuttle service, removal of driveways to provide additional on-street parking and to improve the pedestrian environment, and a lack/limited amount of bicycle parking available at the site. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-3: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-3: TR-2, Site Driveway Removal. AAU shall eliminate two of the three existing curb cuts (one on Lombard Street and one on Greenwich Street) and replace with two or more on-street public parking spaces.

Recommended Condition of Approval, ES-3: TR-3, Pedestrian Improvements. As part of the parking lot improvement, AAU should explore whether a mid-block pedestrian pathway could be established at this mid-block location to replace the driveway extending through the site to Greenwich Street, taking into account operational and safety considerations.

Recommended Condition of Approval, ES-3: TR-4, Bicycle Parking. AAU shall improve upon the arrangement and type of existing bicycle parking, and add 20 Class I bicycle parking spaces and 3 Class II bicycle parking spaces to meet the Planning Code requirement. Bicycle rack types, location and clearance requirements should be consistent with City Planning guidance. Bicycle parking should be conveniently located and easily accessed from the ground floor (at grade level).

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in the Noise subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 1727 Lombard Street (ES-3) is located on the south side of Lombard Street, between Octavia and Laguna streets in the Marina neighborhood. The existing building has approximately 52 rooms and 81 beds. There is an AAU shuttle stop directly in front of ES-3. No vehicle trips are generated by the uses in ES-3; students use the AAU shuttle system, bicycles, and public transit.[122] According to the San Francisco Transportation Noise Map,[123] the existing traffic noise level near ES-3 from vehicular traffic on Lombard Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along these types of streets currently exceed the “satisfactory” level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-3. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-3 building would have been and continue to be required to comply with the City’s Noise

---

[122] CHS Consulting Group, AAU ESTM Transportation Section Draft #1A, January 2016.
[123] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-3 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-3.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the existing ES-3 residential building may be subject to the requirements in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior noise level of 45 dBA L_{dn} in any habitable room where dwelling units are in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels above 70 dBA L_{dn}, as for ES-3, more insulation than is typically provided with conventional construction may be necessary.

If the change in use from a non-sensitive use (tourist hotel) to a sensitive use (group-housing) use does not meet the California Noise Insulation Standards, existing traffic noise in the area has the potential to result in unacceptable interior noise levels that could disturb sleep. The following recommended Condition of Approval for Interior Noise Levels for Residential Uses would reduce the effect of exposure to excessive noise levels and would meet *San Francisco General Plan* recommendations for residential uses:

Recommended Condition of Approval ES-3: NO-1, Interior Noise Levels for Residential Uses. For existing AAU residential buildings located along streets with noise levels above 60 dBA L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-3, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been occupied by AAU in 2007, when AAU took control of the building. Area sources were estimated based on an 81 dwelling unit “Mid-Rise Apartments” land use designation in CalEEMod; although the building is two stories, the designation Mid-Rise Apartment was used to present a conservative result. Because the residents at ES-3 are assumed to use only public transit, mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 2005 was conservatively assumed for ES-3. There is an on-site domestic hot water boiler at ES-3. Table 37 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-3, which are all shown to be below BAAQMD's daily and annual significance thresholds.

Table 37. 1727 Lombard Street (ES-3) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	2.03	2.42	0.38	0.38	0.35	0.44	0.07	0.07
Energy	0.01	0.09	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	2.04	2.51	0.39	0.39	0.35	0.45	0.07	0.07
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-3 is not one of those sites; therefore, AAU occupation of ES-3 has not resulted in increased health risks for nearby sensitive receptors and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-3 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with

Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-3 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-3: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use are not considered substantial.

Wind and Shadow

The tenant improvements at ES-3 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-3.

Recreation

As shown on Figure 4, p. 3-63, 1727 Lombard Street (ES-3) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) parks: Moscone Recreation Center, Allyne Park, and Fort Mason. Moscone Recreation Center, located at 1800 Chestnut Street, includes an indoor gymnasium, community rooms, two play areas, a basketball court, two tennis courts, four ball diamonds, a putting green, and fully renovated playground.[124] Allyne Park, located at 2609 Gough Street, features a grass clearing, walking path and bench seating.[125] Fort Mason on San Francisco's northern waterfront, is part of the Golden Gate National Recreation Area; it includes amenities such

[124] San Francisco Recreation and Park Department, Moscone Rec Center. Available online at: http://sfrecpark.org/destination/moscone-rec-center/. Accessed on January 15, 2016.

[125] SF Curbed, Getting to Know Cow Hollow's Allyne Park. Available online at: http://sf.curbed.com/archives/2012/06/05/getting_to_know_cow_hollows_allyne_park.php. Accessed January 2016.

as the Great Meadow lawn, museum shows, fairs, dining, theaters, seminars, and a hostel and offers pedestrian access to the Bay.[126] Other publicly owned parks are within a 0.5-mile distance of ES-3, including Marina Green and Russian Hill Open Space.

As described in Population and Housing on p. 4-76, the capacity of ES-3 is 81 beds. The change in use from a motel to student housing (group housing for a postsecondary educational institution) at ES-3, although resulting in an increase in the residential population of the area, does not represent a substantial change in the area's population. The change in population is considered a minimal increase compared to the service populations for the Moscone Recreation Center, Allyne Park, or Fort Mason facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounge and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-3 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous tourist motel land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[127] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-3. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have

[126] Golden Gate National Parks Conservancy, Fort Mason. Available online at: http://www.parksconservancy.org/visit/park-sites/fort-mason.html. Accessed on January 15, 2016.

[127] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[128] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use may have incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-3 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[129] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[130] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-3 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent information available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[131] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

1727 Lombard Street has a capacity of 81 beds (52 group-housing rooms). The change in use from a tourist motel to student housing (group housing for a postsecondary educational institution) within RH-2 and NC-3 Zoning Districts would not represent a substantial change in the overall population of the area. Therefore, daytime population of the motel would have been proximate to that of student housing, and the change in use would have resulted in minimal additional police protection demand.

---

128 SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

129 San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

130 CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

131 San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred. As a result of the change in use at ES-3.

Fire and Emergency Services

ES-3 is located within 4,000 feet of Fire Station No. 16 (2251 Greenwich Street) and Fire Station No. 38 (2150 California Street). Fire Station No. 16 consists of a single fire engine and a truck, and Fire Station No. 38 consists of a single fire engine.[132] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 16 responded to 360 non-emergency calls with an average response time of 8:20 minutes, with 90 percent of non-emergency calls responded to in under 16:02 minutes. Fire Station No. 16 responded to 1,507 emergency calls with an average response time of 3:13 minutes, with 90 percent of emergency calls responded to in under 4:31 minutes. In 2011, Fire Station No. 38 responded to 510 non-emergency calls with an average response time of 6:47 minutes, with 90 percent of non-emergency calls responded to in under 12:31 minutes. Fire Station No. 38 responded to 1,662 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:14 minutes.[133]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-3 meet the Citywide emergency transport goals.

As described above on p. 4-76, the change in use from a motel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred. As a result of the change in use at ES-3.

Libraries

The nearest public libraries to ES-3 are the Marina Branch Library, a few blocks west on Chestnut Street, and the Golden Gate Branch Library, a few blocks north on Green Street. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-76, the change in use from a tourist motel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the daytime population of the area. Any change in population would be minimal compared to the service population for the Marina Branch, Golden Gate Branch, and Main Libraries. In addition, public

[132] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[133] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-3.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as tourist motel had no effect on nearby schools because tourist's children would not be enrolled in area schools. Similarly, the change in use under AAU to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand for SFUSD facilities, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[134] No change in the school-aged population would occur. For the reasons stated above, no effect on schools has occurred as a result of the change in use at ES-3.

Biological Resources

ES-3 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-3. ES-3 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-3.

Geology and Soils

ES-3 is underlain by Quaternary dune sands and bedrock. The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is described as clean, well sorted, fine to medium grained sand. The dune sand is typically highly permeable. Above the dune sand is fill that may contain brick fragments and coarse rubble. Groundwater is estimated to be 10 to 15 feet below ground surface.[135] Because building alterations undertaken by AAU were primarily interior and limited to minor exterior modifications, no substantial change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-3 would be very strong during a magnitude 7.2 earthquake and strong during a 6.5 magnitude

---

[134] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

[135] Geologica, Inc., Phase I Environmental Site Assessment for 1727 Lombard Street, December 2007.

earthquake originating from the San Andrea Fault or Hayward Fault, respectively.[136, 137] ES-3 is located within a liquefaction zone.[138] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations are at an increased risk of structural failure. ES-3 is constructed of wood with a stucco façade. Portions of the building are constructed over the parking garage; therefore, the building has a soft story. However, it does not fall under the Mandatory Soft Story Retrofit Program (San Francisco Building Code Chapter 34B) because it has only one story over the parking area. ES-3 is not a made of unreinforced masonry.[139] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from a tourist hotel to student housing (group housing for postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-3 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of metal security gates and garage doors). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building and paved parking lot. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-3 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted

---

[136] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[137] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[138] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[139] City and County of San Francisco, UMB – All Report, December 1, 2014.

by the SFPUC through the year 2100.[140] ES-3 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-3.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-3 did not identify the presence of underground storage tanks (USTs) or significant historic use of hazardous materials, although the site was used historically for industrial and warehousing purposes.[141] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1953, and the addition in 1960 suggest that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. No suspected ACMs were observed during the site visit for the ESA. No potential or suspect PCBs or LBP were observed on the property.[142] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-3 is a student housing building with a common room, laundry room, manager's office, and a kitchen. Hazardous materials that are used, stored, and disposed of at ES-3 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which do not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-3.

Tenant improvements at ES-3 associated with the conversion of tourist motel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-93 – 4-94. The GHG

[140] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[141] Geologica, Phase I Environmental Site Assessment for 1727 Lombard Street, December 2007.
[142] Geologica, Phase I Environmental Site Assessment for 1727 Lombard Street, December 2007.

Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[143] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-3, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-3. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-3 has not resulted in the use of large amounts of energy, fuel, or water or the use of these resources in a wasteful manner.

Therefore, the change in use at ES-3 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-3 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[144] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-3 has had no substantial effects on agriculture or forest resources.

[143] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1727 Lombard Street, March 4, 2016.

[144] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.4. 2211 Van Ness Avenue (ES-4)

Property Information

The 2211 Van Ness Avenue existing site (ES-4), AAU's "Ansel Adams Building,"[145] is a two-story, 5,076-square-foot building constructed in 1876 located on Van Ness Avenue between Vallejo Street and Broadway, in the Pacific Heights neighborhood (Photographs 21–24). The building has three apartments, eight group-housing rooms, and a capacity of 20 beds. The site is Lot 005 in Assessor's Block 0570.

Prior to Academy of Art University (AAU) occupation in 2005, the building was residential with a ground-floor restaurant. The building has both apartment-style units with private kitchens and dormitory-style units with a communal kitchen, as well as a laundry room.[146] ES-4 is listed as a contributory building in the Van Ness Avenue Area Plan.[147] The site is served by AAU shuttle bus route M. AAU shuttle buses use the 40-foot-long white passenger loading zone fronting 2209 Van Ness Avenue (ES-5), approximately 30 feet south of ES-4. Figure 4, ES-4 & ES-5: 2211 & 2209 Van Ness Avenue – Existing Condition, in Appendix TDM, shows this site and the adjacent 2209 Van Ness Avenue AAU site.

The site is zoned RC-3 (Residential-Commercial, Medium Density), which provides for medium density residential buildings with supporting neighborhood-serving commercial uses typically located on the ground floor. Retail uses on the second floor require conditional use (CU) authorization. Single room occupancy buildings and student housing are listed as principal permitted uses; institutional uses and hotels require CU authorization, pursuant to San Francisco Planning Code (Planning Code) Section 209.3. The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D.

Tenant Improvements and Renovations

AAU re-roofed the building and, on the interior, AAU had exploratory demolition work done to fix a wall/deck at the rear room (no structural work was involved). Without building permits, AAU painted signage over an existing awning some time after 2008 and remodeled the ground floor to provide bedrooms, bathrooms, and kitchens, and to add full-height walls, baseboard heaters, and a shower after 2007. [148] AAU also and installed security fencing along the brick wall at some point after 2005 without a building permit.[149]

---

145 *2011 IMP*, p. 101.
146 *2011 IMP*, p. 101.
147 *2011 IMP*, p. 101.
148 Building Permits obtained for the improvements and renovations at ES-4 are: BPA #201202234678 (reroofing), #200702264852 (ground-floor remodeling, permit never issued), #200804028568 (signage, permit never issued), and #200903204570 (exploratory demolition).
149 Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 21. 2211 Van Ness (ES-4).

Photograph 22. Mid-block Van Ness Avenue, facing east.

Photograph 23. Mid-block Van Ness Avenue, facing south.

Photograph 24. Mid-block Van Ness Avenue, facing north.

Required Project Approvals

The 2211 Van Ness Avenue existing site (ES-4) would require a legislative amendment to San Francisco Planning Code (Planning Code) Section 317(f)(1), the Student Housing Legislation, to allow for conversion of residential and commercial uses to student housing (group housing for a postsecondary educational institution) within a RC-3 (Residential-Commercial, Medium Density) Zoning District. A building permit under Planning Code Section 171 and CU authorization under Planning Code Sections 303 and 209.3 would be required for the change in use from residential and commercial to student housing (group housing for a postsecondary educational institution). A building permit is required for any tenant improvements to the building that were not permitted.

Plans and Policies and Land Use

ES-4 is located in the Pacific Heights neighborhood. The Nob Hill and Russian Hill neighborhoods are located on the east side of Van Ness Avenue, to the south and north of Broadway, respectively. In the immediate vicinity of ES-4 there are a mix of uses including residential, commercial, medical, and hotel uses. The ES-4 building was built in 1876, is two stories, and was previously used as a multi-family residential building with ground-floor restaurant.

ES-4 is located on Van Ness Avenue, a major north-south thoroughfare that serves as U.S. 101 through San Francisco to the Golden Gate Bridge. Near ES-4, Van Ness Avenue has three lanes in each direction with a planted median. Parallel parking is limited to 2 hours for non-residential cars on both sides of Van Ness Avenue. The Van Ness Bus Rapid Transit Project is scheduled to begin construction in 2016 and will include 2 miles of dedicated transit-only lanes near ES-4 that separate transit from traffic, enhanced boarding platforms, and the installation of new traffic signals. Bus stops are located on the northeastern corner of Van Ness Avenue and Broadway, and the southwestern corner of Van Ness Avenue and Vallejo Street. A white passenger loading zone is located in front of ES-4 for AAU shuttle service.

Land use near ES-4 is primarily mixed use. The block includes a dental office, professional offices, restaurants, a bicycle store, and a spa. South of ES-4 is the Inn on Broadway, at the northwestern corner of Van Ness Avenue and Broadway. The block also has several solely residential-use buildings. A private surface parking lot is located adjacent to 2200 Van Ness Avenue, directly across the street from ES-4.

The zoning along both sides of Van Ness Avenue near ES-4 is RC-3 (Residential – Commercial, Medium Density). RC-3 Zoning Districts provide for a mixture of medium-density dwellings with supporting commercial uses.[150] ES-4 is located in the Van Ness Special Use District. The Van Ness Special Use District’s focus is to implement the Van Ness Avenue Area Plan, which attempts to revitalize the area by encouraging new retail and housing to facilitate the transformation of Van Ness Avenue into an attractive mixed-use boulevard.[151] The use of ES-4 as student housing is consistent with the Van Ness Area Plan. The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D.

[150] Planning Code Section 209.3.
[151] Planning Code Section 243.

As noted above, the use of ES-4 has been changed by AAU from residential and commercial to student housing (group housing for a postsecondary educational institution) use. The change in use of the site to student housing (group housing for a postsecondary educational institution) remains representative of the primarily residential uses in the RC-3 Zoning Districts. However, the change in use at ES-4 conflicts with the Planning Code and requires a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

Change in use would not physically divide an established community; rather, localized changes in character could occur as the previous use as a single-family residential dwelling is altered to student housing (group housing for a postsecondary educational institution) use. The change in use would intensify activities and introduce new patterns of use at the site (i.e., student populations as opposed to longer-term residents). In addition, the change in use could increase AAU's presence in the area, because the institution occupies student housing at the adjacent property (2209 Van Ness Avenue [ES-5]), as well as St. Brigid Church (ES-6) at the corner of Van Ness Avenue and Broadway, approximately 175 feet east of ES-4, which is used for lectures.

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the Planning Commission as a CU within an RC-3 District. Since ES-4 involves the conversion of residential units to student housing, which is not permitted per Section 317(f), a legislative amendment to the subject Code section is required. Additionally, a building permit pursuant to Planning Code Section 171 is required. The ES-4 uses would not, however, conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-4 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-4 is 20 residents (three apartments and eight group-housing rooms). The change in use from residential and commercial to student housing (group housing for a postsecondary educational institution) would not substantially alter the population of the building. Conservatively presuming that ES-4 was unoccupied prior to AAU use, the change in population of 20 beds would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[152] However, the student housing use would likely have a larger population compared to the previous use as two dwelling units.

[152] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

Because another AAU student housing location is adjacent to ES-4 at 2209 Van Ness Avenue (ES-5), the neighborhood population of AAU students is relatively high (approximately 76 student residents). Though not heavily used, St. Brigid Church (ES-6), is also located approximately 185 feet to the south at 2151 Van Ness Avenue. The student population would be typical of an urban neighborhood with a mix of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[153] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[154] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-4.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU, including the combined discussion of demand for housing and displacement of housing. The housing demand created by ES-4 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

The change in use at ES-4 from residential and commercial to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-4 could have resulted in displacement of people and existing housing units; however, the previous use as two dwelling units would not necessitate the need to construct replacement housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. ES-4 provides 20 beds of the 1,810 beds that AAU provides for AAU students and supplements some housing demand created by AAU.

Due to the conversion of group-housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or single-room occupancy (SRO) to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to Student Housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-4 is located along the Van Ness Corridor within the Pacific Heights neighborhood. The Nob Hill and Russian Hill neighborhoods are located on the east side of Van Ness Avenue, to the south and

[153] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.
[154] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

north of Broadway, respectively. ES-4 was built in 1876 and is a notable example of Italianate-style residential architecture and representative of the Van Ness Corridor prior to the 1906 Earthquake and Fire. The building is set back and elevated from the sidewalk. A mature street tree is located directly in front of the building on Van Ness Avenue. ES-4 is bounded by Van Ness Avenue to the east, another AAU building (ES-5) to the south, a dentist office to the north, and a backyard to the west.

Van Ness Avenue (U.S. 101) is a major arterial roadway linking Lombard Street and the Golden Gate Bridge to the north and U.S. 101 to the south. In addition, other nearby streets including Franklin Street, Gough Street, Broadway, and Polk Street are all moderate- to heavily traveled thoroughfares that link neighborhoods in the City. As such, vehicular traffic is a major contributor to the visual environment near ES-4.

Much of the streetscape is dominated by low- to moderate-scale residential and commercial buildings with some neighborhood-serving retail and restaurant uses on the ground floor. Many of the buildings on the western side of Van Ness Avenue, on the subject block, are set back from the sidewalk and have fencing and landscaping as a visual buffer. Generally, buildings across the street from ES-4 have larger massing and no setback, creating a continuous façade. A variety of architectural styles that include differing building materials and patterns, window patterns, and rooflines are present; however a majority of the buildings on the subject block appear older and were likely built pre-1960.

ES-4 is located on and viewable from Van Ness Avenue, which is designated as a street that defines City form and is important for significant building viewing.[155] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses generate a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-4 has caused minimal visual changes to the building and neighborhood. The installation of security fencing does not degrade the visual quality of the building or neighborhood. AAU has painted signage on an existing awning. Nevertheless, the small signage is comparable to other advertising in the area including signs relating to a bicycle shop, spa, dentist office, and restaurant that are also located on Van Ness Avenue between Broadway and Vallejo Street. In addition, the previous restaurant use of the site had a similarly sized awning with advertising. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-4.

Cultural and Paleontological Resources

Historic Architectural Resources

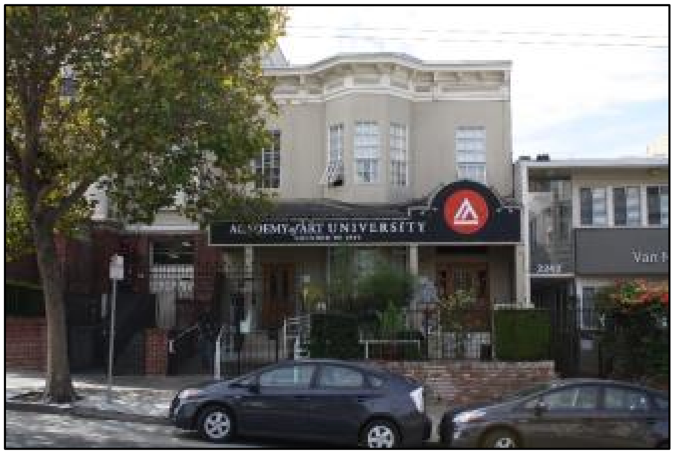
Building Description

Originally constructed as a single family residence in 1876, the building at 2211 Van Ness Avenue (ES-4) had been converted to commercial use by the 1980s. The rectangular-shaped building is set back and elevated from the sidewalk. Located on a rectangular, sloped lot, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties. The Italianate style building has a symmetrical façade and is capped with a flat roof with shallow roof eaves which terminate in a molded cornice with brackets. The original façade was expanded to the

---

155 San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

south, east, and west during the structure's conversion to a commercial use. The Italianate ornamental detailing and stucco finish continued on the additions. The main entry is located on the northern corner of the first story, whereas two secondary entries are located on southeast corner of the elevation. Stacked bay windows, characteristic of the style, are centered on the elevation. On the second story, single rectangular windows flank the bay windows. Multi-light awning windows are used on the elevation. Secondary elevations are visible on the north, south and west elevation. The west elevation features wood siding with aluminum sliding windows in various configurations. The small portions of the north and south elevations which are visible are plain with no fenestration (for representative photographs refer to Photographs 25 and 26).



Photograph 25. 2211 Van Ness Avenue.

Photograph 26. 2211 Van Ness Avenue, northeastern perspective of the upper stories of the west elevation

Site History

Information on file with SF Heritage indicates that the Italianate-style residence was constructed in 1876 for James McNeil and converted to a boarding house between 1911 and 1915. Building permits indicate the building was owned by Edith Vivian by 1920 and subsequently by W.D. Forbes in 1934, at which time the single-family residence was converted into private apartments. By 1943, the building contained six apartments with additional interior alterations designed by William Mooser

III. The third generation in a family of San Francisco architects, Mooser was born in 1893 and educated at the École des Beaux Arts in Paris in the early 1920s. Upon his return to San Francisco, he eventually joined his father, William Mooser II, in the family practice, designing numerous buildings throughout San Francisco and California. One of Mooser Jr.'s best-known and celebrated commissions is the Santa Barbara County Courthouse, constructed in 1926.[156]

The building appears to have remained residential into the following decades. By the early 1980s, at least a portion of the building was altered for commercial purposes by Arden Development and Investment. Building permits identify Kham Dinh Tran as the owner as of 1984; around that time, Mr. Tran converted the building into use as the Golden Turtle Restaurant. Extensive interior and exterior alterations were completed over the following two decades, including the replacement of original windows and doors, and additions to the west and south of the building. Most notably, the façade of the building was altered/expanded through the introduction of a third bay on the southern portion of the building. Additions at that time also included an awning spanning the width of the building and the removal and replacement of original windows and doors.

Due to unpermitted work and extensive appeals by the former owner, permits on file at the Department of Building Inspection do not clearly reveal when the southern addition to the primary façade occurred. However, Sanborn Fire Insurance Company maps and photographs on file with San Francisco Planning indicate that this alteration was completed after 1999 and prior to AAU's occupation of the property in 2005.

<u>California Register of Historical Resources Evaluation</u>

Review of materials on file at San Francisco Heritage and the San Francisco Planning Department indicate that the 2211 Van Ness Avenue (ES-4) was found ineligible/not of interest to local planning as part of the 1968 Junior League Survey. The property was subsequently included in Appendix B of the 1995 Van Ness Area Plan, as a contributory building that possessed architectural qualities consistent with the prevailing characteristics of the more intact landmark buildings.[157] No other information was included about the subject property, and as of 2015, it does not appear to have been subject to intensive-level survey or evaluation.

As part of the current study, 2211 Van Ness Avenue was evaluated for eligibility for the California Register of Historical Resources (CRHR). In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[158] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

[156] David Parry, "William Mooser, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2003.
[157] San Francisco Planning Department, *San Francisco General Plan*, Van Ness Area Plan. San Francisco Planning Department, San Francisco, 1995.
[158] National Park Service, National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, National Register Branch, 1990.

Although 2211 Van Ness Avenue is a pre-1906 Earthquake and Fire residential property on Van Ness Avenue, a rare resource within San Francisco, substantial alterations, including the addition of an additional bay and extensive replacement and reconfiguration of windows and doors on the primary façade have negatively affected the integrity of the property’s design, workmanship, materials, association, and feeling. As a result, 2211 Van Ness Avenue no longer retains the character-defining features of a nineteenth century, Italianate residence along Van Ness Avenue. These alterations occurred within the last twenty years and based on archival research and site inspections, they have not acquired significance in their own right. Due to a lack of significant associations and historic integrity, the property does not appear eligible for the CRHR under any applicable criteria, either individually or as a contributor to a historic district.

Because ES-4 does not appear eligible for CRHR listing, it is not considered a historical resource and no analysis of known alterations made by AAU was conducted for compliance with the *Secretary’s Standards for Rehabilitation.*

Archaeology and Paleontology

AAU’s building alterations at ES-4 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU residential building at ES-4 is located on the west side of Van Ness Avenue, mid-block between Vallejo Street and Broadway in the Pacific Heights neighborhood. The 3,689 square-foot site is located in a residential and commercial neighborhood and is adjacent to other residential zoning districts (RH-3 and RM-3) to the west. The approximately 5,076-square-foot, two-story structure was built as a two-family residence and was modified to include a former restaurant use on the ground floor. The building is being used by AAU for eleven residential units (three apartments and eight group-housing units) with a total of 20 beds.

No vehicle or bicycle parking is provided on-site. The primary and the only pedestrian access to the site is from Van Ness Avenue through the gated doorway. There is no AAU shuttle stop provided at this site; however, shuttle service (Route M) is provided at the 40-foot-long white shuttle zone located in front of 2209 Van Ness Avenue (ES-5), which is located approximately 30 feet south of ES-4.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use (20 beds) at ES-4 generates approximately 15 person trips (six inbound trips and nine outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-4 and 2209 Van Ness Avenue (ES-5) are immediately contiguous to each other. In the vicinity of these two AAU sites, Van Ness Avenue and Broadway have a mixture of office, retail, institutional, and residential uses. Vallejo Street has mostly residential uses. Van Ness Avenue is also U.S. 101, which has heavy traffic during the morning and afternoon peak periods. Traffic volumes are moderate to heavy along Broadway, and are light along Vallejo Street. The heaviest traffic movements in the project vicinity are on the southbound Van Ness Avenue approach to Broadway eastbound, especially during the AM peak period and along Broadway in the westbound approach to Van Ness Avenue northbound in the PM peak period. There are two Muni routes in the vicinity of ES-4, 47-Van Ness and 49-Van Ness/Mission, both of which operate along Van Ness Avenue. In 2010 four AAU shuttle bus routes (D, M, Q, and R) stopped at 2209 Van Ness Avenue, which also served this site as well as the 2151 Van Ness Avenue site (ES-6) located 270 feet to the south; as of spring 2015 only route M provides shuttle service at these three sites.

The following presents a discussion of existing roadway systems in the vicinity of ES-4, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[159,160] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[161]

Van Ness Avenue is a north-south commercial throughway that runs between North Point Street and Market Street, where it becomes South Van Ness Avenue. Van Ness Avenue, with its connection to Lombard Street, is also designated as U.S. 101 through the City. Van Ness Avenue has three lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking in the vicinity of the AAU site. The *San Francisco General Plan* classifies Van Ness Avenue as a Major Arterial in the CMP Network; it is also part of the MTS Network, a Transit Preferential Street (Transit Important Street), part of the Citywide Pedestrian Network, and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network..

Vallejo Street is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of the AAU site, Vallejo Street has one travel lane in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street.

Broadway is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of the AAU site, Broadway has two travel lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies Broadway as a Major Arterial in the CMP Network. Broadway is designated as a High Injury Corridor in the City's Vision Zero network.

The student housing uses at ES-4 and ES-5 are not expected to generate a substantial amount of vehicle trips because residential students are discouraged from driving private automobiles, but the institutional use at ES-6 located approximately 240 feet south of ES-4 adds approximately seven vehicle trips to adjacent streets during the PM peak hour. Based on this level of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered by AAU uses at 2209, 2211 or 2151 Van Ness Avenue.

[159] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[160] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[161] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

Transit

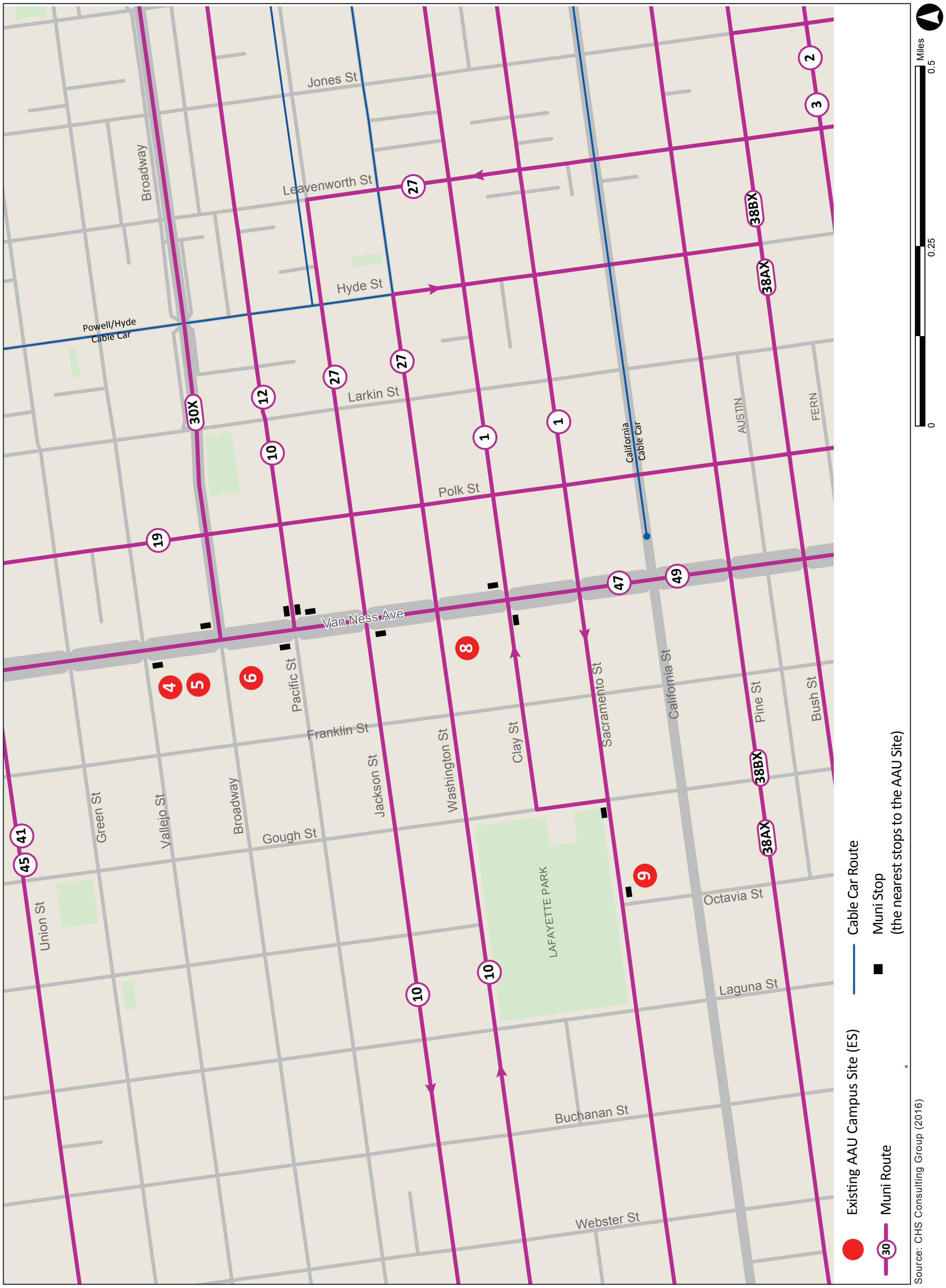
The student housing use at ES-4 generates approximately one transit trip during the PM peak hour. This is primarily due to residential students utilizing AAU shuttles, including on weekends. ES-4 is served by Muni bus lines 47-Van Ness and 49-Van Ness/Mission, both of which travel along Van Ness Avenue, and the 19-Polk route on Polk Street. These routes provide further connections to Muni rail service on Market Street and other east-west routes, such as 10-Townsend, 12-Folsom/Pacific, and 27-Bryant. The nearest bus stops to the AAU site are located on Van Ness Avenue between Vallejo Street and Broadway, which serve the 47-Van Ness and the 49-Van Ness/Mission lines. Stops include shelters and signage with transit information (see Figure 7**,** Muni Transit Network for ES-4, ES-5, ES-6, ES-8, and ES-9). There are also eight Golden Gate Transit bus lines (i.e., Routes 10, 54, 56, 70, 72X, 93, 101, and 101X) that use the bus stop on Van Ness Avenue north of Broadway.

Table 38 presents the AM, midday, and PM frequencies of the Van Ness Avenue lines as well as the passenger load and capacity utilization at the Maximum Load Point (MLP) during the PM peak hour. All three Muni routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

Table 38. 2211 Van Ness Avenue – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
19 – Polk	Hunter's Point to Fisherman's Wharf via Civic Center	15	15	15	124	Polk St/ Sutter St	49%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).



AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 7: MUNI TRANSIT NETWORK FOR ES-4, ES-5, ES-6, ES-8, AND ES-9

As part of the SFMTA's Muni Forward, the following change is proposed:

- The Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent (this project has been approved). Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The one PM peak hour transit trip generated by the AAU student housing use at ES-4, in combination with one other transit trip from ES-5 and 22 transit trips from 2151 Van Ness Avenue (ES-6), are distributed to several routes and are generally accommodated on existing transit service. There is no existing shuttle stop provided at this site; thus AAU shuttle service has not substantially conflicted with the operation of transit vehicles.

Shuttle

The AAU student housing use at ES-4 generates approximately eight shuttle riders during the PM peak hour, with approximately four riders in each direction. AAU shuttle route M currently runs adjacent to the site on Van Ness Avenue, but no shuttle stop is provided at ES-4. Instead, students walk approximately 30 feet to the shuttle zone located in front of the adjacent 2209 Van Ness Avenue site (ES-5) to catch AAU shuttle bus route M. In 2010, this site was served by AAU shuttle bus routes D, M, Q and R, with 20-minute, 60-minute, 30-minute, and 30-minute headways, respectively, throughout the day. The total seating capacity for these four routes was 299 seats in the PM peak hour. Routes D, M, Q and R operated at 30, 44, 29, and 18 percent capacity utilization, respectively, at the MLP during the PM peak hour. During the shuttle peak hour, routes D, M, Q and R operated at 64, 81, 96, and 55 percent capacity utilization, respectively, at the MLP. MLPs occur at 860 Sutter Street on Route D, at 860 Sutter Street on Route M, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. Due to this past excess shuttle capacity, in 2015 only route M serves this site. Route M operates with 20-minute headways and a total of 72-seat capacity over the PM peak hour, a 76 percent reduction over 2010 shuttle conditions.

The eight PM peak hour AAU shuttle bus riders, in addition to the estimated 12 shuttle bus trips at the adjacent 2209 Van Ness Avenue (ES-5) and seven shuttle bus trips at 2151 Van Ness Avenue (ES-6) sites, could be accommodated on this route. However, since this route also stops at other student housing locations prior to this site, a Condition of Approval to assess and monitor shuttle demand on this route (Route M) is recommended below.

More information is provided in the 2209 Van Ness Avenue (ES-5) site discussion under "Shuttles."

Pedestrian

The AAU student housing use at ES-4 generates 14 pedestrian trips, including five walking, one transit and eight shuttle trips during the PM peak hour. The eight shuttle walking trips are short in length: from the building entrance to the passenger loading zone in front of 2209 Van Ness Avenue (ES-5), approximately 30 feet to the south. Both Broadway and Van Ness Avenue are designated as

High Injury Corridors under the City's Vision Zero Improvement Plan.[162] Intersections near the AAU site have well-defined crosswalk markings, pavement delineations, and traffic lights. The intersection of Van Ness Avenue and Broadway has pedestrian crossing signal heads. The intersection of Van Ness Avenue and Vallejo Street is signalized, but does not have pedestrian crossing signal heads. Sidewalks along Vallejo Street, Van Ness Avenue, and Broadway are approximately 10 and 16 feet wide, respectively, and portions of these streets are lined with street trees in the vicinity of ES-4. There is no curb cut at this site. The primary and only pedestrian access to the site is from Van Ness Avenue through the gated doorway.

Pedestrian volumes were observed to be generally low in the vicinity of ES-4 and pedestrians were observed to move freely within the sidewalk and crosswalk areas. The land uses in the area are mostly residential with some ground floor retail, which does not attract a considerable amount of pedestrian activity. During the field observation, there were no pedestrians standing outside of ES-4 or at Muni bus stop shelters located in front of the site. Adjacent pedestrian facilities accommodate the estimated 14 pedestrian trips (including to and from shuttle and transit service). The 14 pedestrian trips at ES-4 and 20 pedestrian trips for the adjacent 2209 Van Ness Avenue (ES-5) and 35 pedestrian trips at the 2151 Van Ness Avenue (ES-6) are accommodated on the adjacent 10- and 16-foot sidewalks.

Bicycle

The student housing land use at ES-4 generates one bicycle trip. Van Ness Avenue is not a bicycle route. However, Route 25 on Polk Street and Routes 210 on Broadway are located within a block of the site. AAU reports there is no bicycle parking provided on site, with limited access to rear courtyard areas. The nearest public bicycle racks are located on the east side of Van Ness Avenue north of Broadway on sidewalks. The site's one PM peak hour bicycle trip, even in combination with the one PM peak hour bicycle trip from 2209 Van Ness Avenue (ES-5) and one trip from 2151 Van Ness Avenue (ES-6), has not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a demand for approximately three bicycle parking spaces.[163] Pursuant to Planning Code Section 155.2, the 20-bed student housing use at ES-4 is required to provide five Class I bicycle and three Class II spaces.[164] Therefore, Conditions of Approval related to additional bicycle parking are recommended below.

Loading

The AAU student housing use at ES-4 generates limited freight loading demand (less than one daily truck trip). There are no on-street freight loading (yellow) spaces adjacent to the site. This site does not have any off-street loading spaces. It is likely that the infrequent commercial deliveries to the site utilize the nearest commercial zone such as the one located on the north side of Vallejo Street west of Van Ness Avenue, approximately 210 feet north of the AAU site. Additionally, there are

[162] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

[163] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[164] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

approximately four white passenger loading spaces adjacent to the site, including 20 feet on the south side of Vallejo Street, 40 feet in front of ES-5 (used as a shuttle stop), and 16 feet on the north side of Broadway.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU freight/delivery vehicles or related activities were observed and general commercial activity in the area was low during the observation. On-street parking spaces along these streets experience moderate to high parking utilization during the midday period. Trucks making deliveries to this site have to find available on-street parking spaces in the vicinity, such as the existing yellow freight loading zone on the north side of Vallejo Street west of Van Ness Avenue, approximately 210 feet north of the site. Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU student housing use as noted during observation have not substantially altered commercial loading conditions in the vicinity. As discussed under the Shuttle discussion above, a Condition of Approval is recommended in the discussion of ES-5, 2209 Van Ness Avenue, Section 4.2.5, to reduce the size of the white zone in front of ES-5.

Garbage collection at this site occurs on the west side of Van Ness Avenue, located next to the entrance of the site. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection along Van Ness Avenue at this location occurs three days a week in the late night hours.

Parking

The AAU student housing use at ES-4 is not expected to generate parking demand since students are discouraged from bringing private vehicles to San Francisco.[165] The site does not provide any off-street parking. Although the site has not resulted in a substantial increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site and other nearby AAU sites (2209 Van Ness Avenue [ES-5] and 2151 Van Ness Avenue [ES-6]) during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces bordering ES-4 and the other nearby AAU sites at 2209 Van Ness Avenue (ES-5) and 2151 Van Ness Avenue (ES-6) are generally time limited (2-hour) and unmetered except for portions of Vallejo Street, Van Ness Avenue (between Broadway and Pacific Avenue) and Pacific Avenue which also have metered parking. Table 39 summarizes on-street parking supply and weekday midday occupancy for streets near ES-4 and other nearby AAU sites such as 2209 Van Ness Avenue (ES-5) and 2151 Van Ness Avenue (ES-6). There are a total of 55 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was very high, averaging about 95 percent between 1:00 p.m. and 3:00 p.m. However, the AAU student housing use at 2211 Van Ness Avenue is not expected to have substantially added to this existing condition. As indicated under the Shuttle discussion, a Condition of Approval is recommended in Section 4.2.5 to reduce the size of the white loading zone in front of ES-5.

165 Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed on April 20, 2016.

Table 39. 2211 Van Ness Avenue – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Vallejo St	Franklin St	Van Ness Ave	South	6	6	100%
Van Ness Ave	Vallejo St	Broadway	West	6	6	100%
Broadway	Franklin St	Van Ness Ave	North	14	13	93%
			South	8	8	100%
Van Ness Ave	Broadway	Pacific Ave	West	5	5	100%
Pacific Ave	Franklin St	Van Ness Ave	North	16	14	88%
Total				**55**	**52**	**95%**
Note: Parking utilization above 100 percent indicates double parking or other illegal activity.						

Source: CHS Consulting Group, 2015.

An off-street parking inventory is presented for the study area generally bounded by Union Street, Gough Street, Jackson Street, and Larkin Street. Table 40 shows there is one public off-street parking facility within the study area with a total of 111 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 40. 2211 Van Ness Avenue– Off-Street Parking Supply

Address	Type	Capacity
1650 Jackson St	Garage	111
Total		**111**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Stations #38 (2150 California Street) and #16 (2251 Greenwich Street) are the closest stations to the AAU site, approximately 0.4 miles north and south of the site, respectively. From the stations, vehicles are able to access the AAU site via Van Ness Avenue and would be able to park along Van Ness Avenue.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-4 include a potential need for additional shuttle service, and a lack of/limited amount of bicycle parking available at the site. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-4: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the AAU shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-4: TR-2, Class I Bicycle Parking. AAU shall add five Class I bicycle parking spaces to meet the Planning Code requirement. Since there is limited access to the rear courtyard of 2211 Van Ness Avenue, these spaces could be provided at the 2209 Van Ness Avenue student housing site (next door). Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Recommended Condition of Approval, ES-4: TR-3, Class II Bicycle Parking. AAU shall provide 3 Class II bicycle parking spaces along Van Ness Avenue. The Class II bicycle parking spaces on Van Ness Avenue shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 2211 Van Ness Avenue (ES-4) is located on the west side of Van Ness Avenue, mid-block between Vallejo Street and Broadway in the Pacific Heights neighborhood. The approximately 5,076 gross square foot building, with three apartment units and eight rooms, is being used by AAU as student housing with 20 beds. In 2010, AAU shuttle routes D, M, Q, and R serve ES-4. As of 2015, AAU shuttle routes were revised and only M serves ES-4. The shuttle stop serving ES-4 was in front of the building in 2010. No vehicle trips are generated by the uses in ES-4; students use the AAU shuttle system, bicycles, and public transit.[166] According to the San Francisco Transportation Noise Map,[167] the existing traffic noise level near ES-4 from vehicular traffic along Van Ness Avenue was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along these streets currently exceed the “satisfactory” level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-4. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-4 building have been and continue to be required to comply with the City’s Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-4 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-4.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction

[166] CHS Consulting Group, AAU ESTM Transportation Section Draft #1A, January 2016.
[167] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

requirements must be done and needed noise insulation features included in the design. Tenant improvements at the existing ES-4 residential building may be subject to state Title 24 noise requirements contained in the California Noise Insulation Standards. This Building Code regulation requires meeting an interior noise level standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels above 70 dBA L_{dn}, as for ES-4, more insulation than is typically provided with conventional construction may be needed. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-4, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been occupied by AAU in 2005, when AAU took control of the building. Area sources were estimated based on a 20 dwelling unit “Mid-Rise Apartments” land use designation in CalEEMod; although the building is two stories, use of “Mid-Rise Apartments” provides a conservative result. Because the residents at ES-4 are assumed to use only public transit, mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There are no on site generators or boilers at ES-4. Table 41 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-4, which are all shown to be below BAAQMD’s daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-4 is not one of those sites; therefore, AAU occupation of ES-4 has not resulted in increased health risks for nearby sensitive receptors and has not resulted in the exposure of new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco’s ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City’s *Strategies to Address Greenhouse Gas Emissions*. San Francisco’s *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco’s GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state’s GHG reduction law and policy goals.

Table 41. 2211 Van Ness Avenue (ES-4) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.11	0.29	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
Energy	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	0.11	0.29	<0.01	<0.01	0.02	<0.01	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-4 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-4 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-4: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-4 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-4.

Recreation

As shown on Figure 4, p. 3-63, 2211 Van Ness Avenue (ES-4) is located within 0.25 mile of two San Francisco Recreation and Park Department (RPD) parks: Allyne Park and Helen Wills Playground. Allyne Park, located at 2609 Gough Street, features a grass clearing, walking path and bench seating.[168] Helen Wills Playground, located at the corner of Broadway and Larkin Street, features a multi-functional clubhouse, play features, sports courts, and boardwalk.[169] Other publicly owned parks are within a 0.5-mile distance of ES-4, including Lafayette Park and Michelangelo Playground.

As described in Population and Housing on pp. 4-106 – 4-107, the capacity of ES-4 is 20 beds. The change in use from residential and commercial to student housing (group housing for a postsecondary educational institution) at ES-4 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Allyne Park and Helen Wills Playground facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-4 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous residential and commercial land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future

---

168 SF Curbed, Getting to Know Cow Hollow's Allyne Park. Available online at: http://sf.curbed.com/archives/2012/06/05/getting_to_know_cow_hollows_allyne_park.php. Accessed on January 15, 2016.

169 San Francisco Recreation and Parks, Helen Wills Playground. Available online at: http://sfrecpark.org/destination/helen-wills-playground/. Accessed on January 15, 2016.

uses.[170] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[171] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-4 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[172] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[173] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

---

[170] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[171] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[172] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[173] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

Public Services

Police

ES-4 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent data available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[174] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

2211 Van Ness Avenue has a capacity of 20 beds (three apartments and eight group-housing rooms). The change in use from residential and commercial to student housing (group housing for a postsecondary educational institution) within a RC-3 District would represent a slight change in the population of the area, as the population density of student housing is likely more than a residence or commercial use. However, the change would not be substantial because the student housing capacity is limited by the space in the building (three apartments and eight group-housing rooms). Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-4.

Fire and Emergency Services

ES-4 is located within 3,000 feet of Fire Station No. 41 (1325 Leavenworth Street) and Fire Station No. 38 (2150 California Street). Fire Station Nos. 38 and 41 both consist of a single fire engine.[175] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 38 responded to 510 non-emergency calls with an average response time of 6:47 minutes, with 90 percent of non-emergency calls responded to in under 12:31 minutes. Fire Station No. 38 responded to 1,662 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:14 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded

---

174 San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

175 San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[176]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-4 meet the Citywide emergency transport goals.

As described above on pp. 4-106 – 4-107, the change in use from residential and commercial to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-4.

Libraries

The nearest public libraries to ES-4 are the Golden Gate Valley Branch Library and Marina Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

The change in use from a residential and commercial to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the daytime population of the area. Any change in population would be minimal compared to the service population for the Golden Gate Valley Branch and Marina Branch Libraries. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-4.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as a residential building could have contributed to the school-aged population. Presumably the change in use to student housing (group housing for a postsecondary educational institution) would reduce the school-aged population of nearby schools, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[177] The reduction in the school-aged population, if any, would be minimal. For the reasons stated above, no substantial effect on schools has occurred as a result of the change in use at ES-4.

[176] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

[177] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

Biological Resources

ES-4 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-4. ES-4 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-4.

Geology and Soils

ES-4 underlain by well-sorted, fine to medium grained dune sand.[178] The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable. The thickness of the dune sand is unknown but is estimated to be up to 100 feet and is underlain by bedrock. Depth to groundwater is unknown, and groundwater flow is anticipated to be northerly.[179] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-4 would be very strong during a magnitude 7.2 earthquake and strong during a 6.5 magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[180, 181] ES-4 is not located within a liquefaction zone.[182] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-4 is composed of wood with a stucco façade and is not considered a soft story building or made of unreinforced masonry.[183,184] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could be vulnerable during an earthquake, the building alterations carried out after the change in use from residential to student housing (group housing for a postsecondary educational institution) would have no negative effect on the building's performance during a ground shaking event.

---

[178] ATC Associates, Inc., Phase I Environmental Site Assessment for 2211 Van Ness Avenue, June 2005.
[179] ATC Associates, Inc., Phase I Environmental Site Assessment for 2211 Van Ness Avenue, June 2005.
[180] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[181] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[182] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[183] City and County of San Francisco, UMB – All Report, December 1, 2014.
[184] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-4 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., painting signage over an existing canopy, re-roofing, and installing a security fence). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-4 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[185] ES-4 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-4.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-4 did not identify the presence of underground storage tanks (USTs) or significant historic use of hazardous materials, although the site was used historically for industrial and warehousing purposes.[186] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1876, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the building, although there is no evidence of damage or leaks. No peeling paint was detected.[187] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The

185 San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

186 ATC Associates, Inc., Phase I Environmental Site Assessment for 2211 Van Ness Avenue, June 2005.

187 ATC Associates, Inc., Phase I Environmental Site Assessment for 2211 Van Ness Avenue, June 2005.

materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-4 is a student housing building with several kitchens and a laundry room. Hazardous materials that are used, stored, and disposed of at ES-4 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which do not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-4.

Tenant improvements at ES-4 associated with the conversion of residential and commercial space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-120 – 4-121. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids both water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[188] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-4, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at adjacent 2209 Van Ness Avenue (ES-5). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-4 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-4 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-4 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[189] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under

[188] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 2211 Van Ness Avenue, March 4, 2016.

[189] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-4 has had no substantial effects on agriculture or forest resources.

This page intentionally left blank.

4.2.5. 2209 Van Ness Avenue (ES-5)

Property Information

The 2209 Van Ness Avenue existing site (ES-5), also known as the "Mary Cassatt Dormitory,"[190] is a four-story, 11,897-square-foot building constructed in 1912. ES-5 is located on Van Ness Avenue between Vallejo Street and Broadway next to 2211 Van Ness Avenue (ES-4), in the Pacific Heights neighborhood (Photographs 27–29). The building has 22 group-housing rooms with a capacity of 56 beds. The site is Lot 029 in Assessor's Block 0570.

The building had been a residential building until the 1950s, after which it was occupied by the International Institute of San Francisco, providing services to immigrants, and various retail uses.[191] The last legal use was a single-family home. The building is identified in the Van Ness Avenue Area Plan as a significant building.[192] Academy of Art University (AAU) occupancy began in 1998. The student housing building includes a recreation room, a kitchen and dining room, and a backyard patio.[193] The site is served by AAU shuttle bus route M. AAU shuttle buses use the 40-foot-long white passenger loading zone fronting ES-5. Figure 4, ES-4 & ES-5: 2211 & 2209 Van Ness Avenue – Existing Condition, in Appendix TDM, shows the site and adjacent 2211 Van Ness Avenue AAU site.

The site is zoned RC-3 (Residential-Commercial, Medium Density), which provides for medium density residential buildings while supporting neighborhood-serving commercial uses typically located on the ground floor. Single room occupancy buildings and student housing are listed as principally permitted uses; institutional uses and hotels require a CU authorization. The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D.

Tenant Improvements and Renovations

Security bars on a first-floor window, a metal fence, and a gate were added after 1998. AAU performed alterations to comply with the Americans with Disabilities Act (ADA) requirements including adding an exterior lift and removing concrete steps on the ground floor, added structural reinforcement stair beams, and installed and subsequently removed a wall sign at ground level.[194] The sign was originally installed without a building permit.

Required Project Approvals

The 2209 Van Ness Avenue existing site (ES-5) would require a CU authorization under San Francisco Planning Code (Planning Code) Sections 303 and 209.3, and a building permit under Planning Code Section 171 to change the use from residential to student housing (group housing for a postsecondary educational institution) within an RC-3 Zoning District. Since ES-5 involves the

[190] *2011 IMP*, p. 101.
[191] Geologica, Inc., Phase I Environmental Site Assessment for 2209 Van Ness Avenue, March 2003, pp. 7-9.
[192] *2011 IMP*, p. 101.
[193] 2011 IMP, p. 101.
[194] Building Permits obtained for the improvements and renovations at ES-5 are: BPA# 9802790 and BPA #9900915 (handicap-accessible improvements), #200407027975 (structured reinforcement), #200804028570 (sign installation, permit never issued); and #201301248666 (sign removal).

Photograph 27. 2209 Van Ness Avenue (ES-5).

Photograph 28. Mid-block Van Ness Avenue, facing east.

Photograph 29. Mid-block Van Ness Avenue, facing south.

conversion of a residential unit to student housing, which is not permitted per Section 317(f)(1), a legislative amendment to the subject Code section is required. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

Plans and Policies and Land Use

ES-5 is located in the Pacific Heights neighborhood. In the immediate vicinity of ES-5 there are a mix of uses including residential and office uses. The ES-5 building is four stories, and was previously used as a single-family dwelling prior to the International Institute of San Francisco, an immigrant advocacy, purchasing the property in 1953.

ES-5 is situated on Van Ness Avenue, a major north-south thoroughfare that serves as U.S. 101 through San Francisco to the Golden Gate Bridge. Near ES-5, Van Ness Avenue has three lanes in each direction with a planted median. Parallel parking is limited to 2 hours for non-residential cars on both sides of Van Ness Avenue. The Van Ness Bus Rapid Transit Project is scheduled to begin construction in 2016 and will include 2 miles of dedicated transit-only lanes near ES-5 that separate transit from traffic, enhancing boarding platforms, and the installation of new traffic signals. Bus stops are located on the northeastern corner of Van Ness Avenue and Broadway, and the southwestern corner of Van Ness Avenue and Vallejo Street. A white passenger loading zone is located in front of ES-5 for AAU shuttle service.

Land use near ES-5 is primarily mixed-use. The block includes a dental office, professional offices, restaurants, a bicycle store, and a spa. Adjacent and south of ES-5 is the Inn on Broadway. The block also has several solely residential-use buildings. A private surface parking lot is located adjacent to 2200 Van Ness Avenue, directly across the street from ES-5.

The zoning along both sides of Van Ness Avenue near ES-5 is RC-3 (Residential – Commercial, Medium Density). RC-3 Zoning Districts provide for a mixture of medium-density dwellings with supporting commercial uses.[195] ES-5 is located in the Van Ness Special Use District. The Van Ness Special Use District’s focus is implement the Van Ness Avenue Area Plan, which attempts to revitalize the area by encouraging new retail and housing to facilitate the transformation of Van Ness Avenue into an attractive mixed-use boulevard.[196] The use of ES-4 as student housing is consistent with the Van Ness Area Plan. The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D.

As noted above, the use of ES-5 has been changed by AAU from single-family residential to student housing (group housing for a postsecondary educational institution) use. The change in use of the site to student housing (group housing for a postsecondary educational institution) remains representative of the primarily residential uses in the RC-3 Zoning Districts. However, the change in use at ES-4 conflicts with the Planning Code and requires a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

Change in use would not physically divide an established community; rather, localized changes in character could occur as the previous use as an office is altered to a student housing (group housing

[195] Planning Code Section 209.3.
[196] Planning Code Section 243.

for a postsecondary educational institution) use. The change in use would intensify activities and introduce new patterns of use at the site. In addition, the change in use could increase AAU's presence in the area, as the institution occupies student housing at the adjacent property (2211 Van Ness Avenue [ES-4]), and occupies St. Brigid Church [ES-6] at the corner of Van Ness Avenue and Broadway, approximately 175 feet east of ES-5, which is used for lectures.

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the Planning Commission as a CU within an RC-3 District. ES-5 would also require a building permit pursuant to Planning Code Section 171. The ES-5 uses would not, however, conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-5 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-5 is 56 residents (22 group-housing rooms). The change in use from residential and commercial to student housing (group housing for a postsecondary educational institution) would not substantially alter the population of the building. Conservatively presuming that ES-5 was unoccupied prior to AAU use, the change in population of 56 beds would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[197] However, the student housing use would likely have a larger population compared to the previous single-family residence.

Because another AAU student housing location is adjacent to ES-4 at 2211 Van Ness Avenue, the neighborhood population of AAU students is relatively high (approximately 76 student residents). Though not heavily used, St. Brigid Church (ES-6) is also located approximately 185 feet to the south at 2151 Van Ness Avenue. The student population would be typical of a vibrant urban neighborhood with a mix of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[198] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[199] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-5.

---

197 U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

198 ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.

199 ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-5 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

The change in use at ES-5 from single-family residential to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as a residential unit was converted to student housing and this unit was removed from the housing market. The change of use at ES-5 could have resulted in displacement of people and existing housing units; however, the previous use as one dwelling unit would not necessitate the need to construct replacement housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. All former residents of the building moved to housing elsewhere. ES-5 provides 56 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of group-housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or single-room occupancy (SRO) to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to Student Housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-5 is located along the Van Ness Corridor within the Pacific Heights neighborhood. The Nob Hill and Russian Hill neighborhoods are located on the east side of Van Ness Avenue, to the south and north of Broadway, respectively. ES-5 is a notable example of Classical Revival residential architecture and representative of the Van Ness Corridor prior to the 1906 Earthquake and Fire. The building is set back and elevated from the sidewalk with two-story columns on the façade. A mature street tree is located directly in front of the building on Van Ness Avenue. ES-5 is bounded by Van Ness Avenue to the east, another AAU building (ES-4) to the north, a hotel to the south, and a backyard to the west.

Van Ness Avenue (U.S. 101) is a major arterial roadway linking Lombard Street and the Golden Gate Bridge to the north and U.S. 101 to the south. In addition, other nearby streets including Franklin Street, Gough Street, Broadway, and Polk Street are all moderate- to heavily-traveled thoroughfares that link neighborhoods in the City. As such, vehicular traffic is a major contributor to the visual environment near ES-5.

Much of the streetscape is dominated by low- to moderate-scale residential and commercial buildings with some neighborhood-serving retail and restaurant uses on the ground floor. Many of the buildings on the western side of Van Ness Avenue, on the subject block, are set back from the sidewalk and have fencing and landscaping as a visual buffer. Generally, buildings across the street from ES-5 have larger massing and no setback, creating a continuous façade. A variety of architectural styles that include differing building materials and patterns, window patterns, and rooflines are present; however a majority of the buildings on the subject block appear older and were likely built pre-1960.

ES-5 is located on and viewable from Van Ness Avenue, which is designated as a street that defines City form and is important for significant building viewing.[200] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-5 has caused minimal visual changes to the building and neighborhood. The installation of security fencing, security bars on a first-floor window, and an ADA lift do not degrade the visual quality of the building or neighborhood. One piece of AAU signage is attached to the fence and another is mounted to a metal post adjacent to the building. AAU reports that the signage has been removed. Nevertheless, the small signage is comparable to other advertising in the area including signs relating to a bicycle shop, spa, dentist office, and restaurant that are also located on Van Ness Avenue between Broadway and Vallejo Street. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-5.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The building at 2209 Van Ness Avenue (ES-5) was constructed in 1901, originally as a single-family residence before its conversion to a restaurant, and then as home to the International Institute. The rectangular-shaped plan building is set back and elevated from the sidewalk. Located on a rectangular, sloped lot, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties. The Classical Revival style building has a four story volume is capped with a hipped roof and a symmetrical façade. The shallow roof eaves terminate in a molded cornice and dentil course.

Classical Revival ornamental detailing is present throughout the primary façade. The rounded concrete porch with brick siding, granite steps, marble porch floor, and a concrete balustrade leads to a central main entry. The main entry features wood double-doors with glass panels and decorative screens and an arched transom above. A decorative surround and lintel frame the entry way. Prominent, two-story Ionic columns flank the main entry and a second-story balconette with decorative iron railing and scrolled brackets. Paired oculus windows overlook the second-story balconette. On the outside of the Ionic columns are wood-frame sash windows. The dormer protruding from the hipped roof surmounts the columns and has a centered Palladian window. Secondary elevations are visible on the south and west elevations. The south elevation, visible along a narrow walkway leading to the rear of the property, features Classical Revival features and rectangular windows. The west (rear) elevation has doors leading to the first and basement stories with rectangular windows. A second story addition projects to the west and is supported by squared columns. A simplified version of the original structure's cornice line surrounds the addition's flat roof. Wood-framed sash windows and jalousie windows are present of the secondary elevations in

[200] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

various configurations. Security bars have been added over the basement story windows (for representative photographs refer to Photographs 30 and 31).

Photograph 30. 2209 Van Ness Avenue.

Photograph 31. 2209 Van Ness Avenue, close up of the yard and security fence on the primary elevation

Site History

The single-family residence at 2209 Van Ness Avenue was designed by architect Moses J. Lyon for Ida and Abraham Brown in 1901. Moses J. Lyon was a noted San Francisco architect who came to California in 1884 and was a student of H.C. Macy before studying at the Columbia College Metropolitan Art School of New York City.[201] Some of his more prominent works in San Francisco include 1881 Bush Street (Ohabai Shalome Synagogue, 1895), 381–383 Bush Street (J.E. Adams Building, 1902), and 721 Filbert Street (Hildebrand Stables, 1906).

[201] Survey File for 2209 Van Ness Avenue, on file at the San Francisco Planning Department.

Louis Metzger bought the house from the Browns for his family in 1910 for a price of $50,000. He added the rear addition in 1916, reported with the help of the original architect Moses Lyons.[202] Mr. Metzger would own the house until 1924 when it was sold to Raymond and Suzan Duhem.

For the next 29 years the building housed a variety of businesses, including a dressmaking shop and a dancing school, until it was purchased in 1953 by the International Institute of San Francisco, a non-profit which "welcomes, educates, and serves immigrants refugees and their families as they join and contribute to the community."[203] The International Institute hired the architectural firm of Hardin and Choy to do a structural and space plan analysis in 1985. Later that year the International Institute completed some exterior repairs and seismic upgrades to the building. The International Institute continued to function in 2209 Van Ness Avenue, until the late 1990s. Prior to AAU's occupation of the building in 1998, building permits indicate the building was owned by Andrew Meieran. Alterations completed since AAU's occupation of the building include the installation of an ADA lift and removal of concrete steps along the ground level of the primary elevation, and the installation of security fence and window bars.

California Register of Historical Resources Evaluation

2209 Van Ness appears individually eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an example of early, single-family residential development along the Van Ness Avenue corridor prior to the 1906 Earthquake and Fire. The property also qualifies individually under CRHR Criterion 3, as a notable intact example of Classical Revival residential architecture along the Van Ness Avenue corridor.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[204] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 2209 Van Ness Avenue retains integrity and is CRHR eligible. The period of significance is 1901–1916, with the end date corresponding to the addition constructed on the rear of the property.

Character-Defining Features Summary

Exterior

- Four story volume capped with a hipped roof
- Set back and elevated from the sidewalk
- Shallow roof eaves terminating in molded cornice and dentil course
- Prominent, two-story engaged Ionic columns on façade

202 Building Permit 70561; Letter from John F. Fitzgerald dated February 18, 1965, San Francisco Planning Van Ness Survey File.
203 International Institute of the Bay Area, www.iibayarea.org/about/. Accessed January 2016.
204 National Park Service, National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, National Register Branch, 1990.

- Classical Revival ornamental program
- Centered second-story balconette with decorative iron railing and scrolled brackets
- Lower rounded concrete porch with brick siding and balustrade
- Wood-frame sash windows with lead window on north rear elevation
- Paired oculus windows overlooking 2nd story balconette
- Granite steps and marble porch floor
- Square Ionic columns and pilasters
- Original wood main entry door
- Pediment roof dormer

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

ADA Lift and Removal of Stairs: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Fence and Window Bars: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 2. The ADA lift provides access through a double-wide entryway that was created in 1953. Building permits and information included in the City Planning Survey File indicate that the 1953 opening was added to provide access to the basement and included the installation of double wood- and glass-doors underneath a glass transom and accessed via a non-original concrete pathway and short stairway. This change occurred outside of the building's period of significance (1901–1916) and does not appear to have acquired significance in its own right. As a result, the installation of the ADA lift, which also included alteration of the stairs and pathway, and potential replacement of the double doors, has only affected elements of the building that are not original and not considered to be character-defining. The lift does not affect any other features of the building or its design that convey the reasons for its historical significance.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 2. The security fence and window bars do not obscure any of the building's character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 3. The ADA lift is clearly modern and does not create a false sense of historical development.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 3. Although historic photographs indicate that there was no security fence during the period of significance (1901–1916), the extant security fence and window bars do not create a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 4. The double-wide entry where the ADA lift was located was completed in 1953. The property's period of significance is defined as 1901–1916 and research failed to identify any historic associations that would suggest the 1953 entry had acquired significance in its own right.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 5. The project involved noncontributing features and spaces.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 5. The installation of the security fence and window bars resulted in minimal damage to historic materials.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 9. The ADA lift provides access through a double-wide entryway that was created in 1953. Building permits and information included in the City Planning Survey File indicate that the 1953 opening was added to provide access to the basement and included the installation of double wood- and glass-doors underneath a glass transom and accessed via a non-original concrete pathway and short stairway. This change occurred outside of the building's period of significance (1901–1916) and does not appear to have acquired significance in its own right. As a result, the installation of the ADA lift, which also included alteration of the stairs and pathway, and potential replacement of the double doors, has only affected elements of the building that are not original and not considered to be character-defining. It is clearly modern and is differentiated from the old work, while remaining compatible in overall scale and proportion.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 9. The security fence and window bars are compatible in scale and appearance, and do not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 10. The ADA lift is generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 10. The security fence and window bars are compatible in scale and appearance, do not obscure character-defining features, and their removal would not result in any impairment to the building.

Conclusion

The projects comply with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-5 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU residential building at 2209 Van Ness Avenue is immediately contiguous to the 2211 Van Ness Avenue (ES-4) AAU student housing site. ES-5 is located on the west side of Van Ness Avenue, approximately mid-block between Vallejo Street and Broadway in the Pacific Heights neighborhood. The 6,368 square-foot site is located in a residential and commercial district and is adjacent to other residential zoning districts (RH-3 and RM-3) to the west. The approximately 11,897-square-foot, three-story structure was built as a residential building in 1912, and utilized by the International Institute of San Francisco in the 1950s-1990s. AAU has approximately 11,897 gross square feet of residential use comprising of 22 group-housing units with a total of 56 beds.

No vehicle parking is provided on site. The primary and the only pedestrian access to the site is provided from Van Ness Avenue through the gated doorway. There is one bicycle rack (about nine spaces) in the rear courtyard. AAU shuttle bus route M uses the 40-foot-long white passenger-loading zone in front of the building. This shuttle serves the 2211, 2209, and 2151 Van Ness Avenue sites (ES-4, ES-5, and ES-6).

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use at ES-5 generates approximately 21 person trips (10 inbound trips and 11 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

The 2209 Van Ness Avenue site is immediately contiguous to the 2211 Van Ness Avenue site (ES-4); thus, it is served by the same streets as 2211 Van Ness Avenue: Van Ness Avenue, Broadway, and Vallejo Street. In the vicinity of these AAU sites, Van Ness Avenue and Broadway have a mixture of office, retail, institutional, and residential uses. Vallejo Street has mostly residential uses. Van Ness Avenue is also U.S. 101, which has heavy traffic during the morning and afternoon peak periods. Traffic volumes are moderate to heavy along Broadway, and are light along Vallejo Street. The heaviest traffic movements in the project vicinity are on the southbound Van Ness Avenue approach to Broadway eastbound, especially during the AM peak period and along Broadway in the westbound approach to Van Ness Avenue northbound in the PM peak period.

There are two Muni routes in the site vicinity, 47-Van Ness and the 49-Van Ness/Mission, both of which operate along Van Ness Avenue. In 2010, four AAU shuttle bus routes (D, M, Q, and R) stopped at ES-5, which also served ES-4 and ES-6 at 2151 Van Ness Avenue, located 270 feet to the south; as of spring 2015, only route M provides shuttle service at these three sites.

The following presents a discussion of existing roadway systems in the vicinity of ES-5, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[205],[206] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[207]

Van Ness Avenue is a north-south commercial throughway that runs between North Point Street and Market Street, where it becomes South Van Ness Avenue. Van Ness Avenue, with its connection to Lombard Street, is also designated as U.S. 101 through the City. Van Ness Avenue has three lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking in the vicinity of the AAU site. The *San Francisco General Plan* classifies Van Ness Avenue as a Major Arterial in the CMP Network; it is also part of the MTS Network, a Transit Preferential Street (Transit Important Street), part of the Citywide Pedestrian Network, and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network.

Vallejo Street is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of the AAU site, Vallejo Street has one travel lane in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street.

Broadway is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of the AAU site, Broadway has two travel lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies Broadway as a Major Arterial in the CMP Network. Broadway is designated as a High Injury Corridor in the City's Vision Zero network.

---

[205] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[206] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[207] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

The student housing uses at ES-4 2209 Van Ness Avenue and ES-5 2211 Van Ness Avenue are not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles, but the institutional use at 2151 Van Ness Avenue (ES-6) located approximately 210 feet south of ES-5 would add approximately seven vehicle trips to adjacent streets during the PM peak hour. Based on this level of additional vehicle traffic, traffic operating conditions in the project vicinity would not be substantially altered by AAU uses at either 2209 or 2211 Van Ness Avenue or at 2151 Van Ness Avenue.

Transit

The student housing use at ES-5 generates approximately one transit trip during the PM peak hour. This is primarily due to residential students utilizing AAU shuttles, including on weekends. Similar to 2211 Van Ness Avenue (ES-4), ES-5 is served by Muni bus lines 47-Van Ness and 49-Van Ness/Mission, both of which travel along Van Ness Avenue, and the 19-Polk route on Polk Street (see Figure 7, p. 4-114). These routes provide further connections to Muni rail service on Market Street and other east-west routes, such as 10-Townsend, 12-Folsom/Pacific, and 27-Bryant. The nearest bus stops to the AAU site are located on Van Ness Avenue between Vallejo Street and Broadway, and they include shelters and signage with transit information. There also eight Golden Gate Transit bus lines (e.g., Routes 10, 54, 56, 70, 72X, 93, 101 and 101X) that use the bus stop on Van Ness Avenue north of Broadway.

The AM, midday, and PM frequencies of the Van Ness Avenue lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour are presented in Table 42.

Table 42. 2209 Van Ness Avenue – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
19 – Polk	Hunter's Point to Fisherman's Wharf via Civic Center	15	15	15	124	Polk St/ Sutter St	49%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following change is proposed:

- The Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent (this project has been approved). Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The one PM peak hour transit trip generated by the AAU student housing use at ES-5 in combination with the one other transit trip from 2211 Van Ness Avenue (ES-4) and 22 transit trips from 2151 Van Ness Avenue (ES-6) are distributed to several routes and generally accommodated on existing transit service. Based on the location of the shuttle zone in front of the building, AAU shuttle service to the site has not substantially conflicted with the operation of transit vehicles on nearby streets.

Shuttle

The student housing land use at ES-5 generates approximately 12 shuttle riders during the PM peak hour with approximately six riders in each direction. The 40-foot-long white passenger loading zone located in front of this site on Van Ness Avenue also serves the adjacent 2211 Van Ness Avenue student housing site (ES-4) and the 2151 Van Ness Avenue academic site (ES-6). In 2010, this site was served by AAU shuttle bus routes D, M, Q and R, with 20-minute, 60-minute, 30-minute, and 30-minute headways, respectively, throughout the day. The total seating capacity for these four routes was 299 seats in the PM peak hour. Routes D, M, Q and R operated at 30, 44, 29, and 18 percent capacity utilization, respectively, at the MLP during the PM peak hour. During the shuttle peak hour, routes D, M, Q and R operated at 64, 81, 96, and 55 percent capacity utilization, respectively, at the MLP. MLPs occur at 860 Sutter Street on Route D, at 860 Sutter Street on Route M, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. Due to excess shuttle capacity, the site is currently (2015) served by one (reduced from four) shuttle route (Route M). Route M operates with 20-minute headways, which represents a total seating capacity of 72 over the PM peak hour. The 12 PM peak hour shuttle bus riders, in combination with the estimated eight shuttle bus riders at the 2211 Van Ness Avenue (ES-4) and seven shuttle bus riders at 2151 Van Ness Avenue (ES-6) sites, are accommodated on this route. However, since this route also stops at other residential locations prior to this site, a Condition of Approval to assess and monitor shuttle demand on this route (Route M) is recommended below.

Shuttle bus route M uses the existing 40-foot-long passenger-loading white zone in front of ES-5. The hours of operation for the shuttle bus zone are between 7:00 a.m. and 12:00 a.m. Monday through Sunday. In 2010, several shuttle buses used the 60 foot-long shuttle-only passenger loading zone at the time, which is now reduced to 40 feet long. Since only one shuttle bus route currently (2015) provides service to all three of the Van Ness Avenue sites (ES-4, ES-5, and ES-6), it is recommended that the white zone in front of ES-5 be reduced in size consistent with the typical 20 to 25 feet of a Regular stop, as described in the AAU shuttle policy. This recommended Condition of Approval is presented below.

In 2010, several shuttle buses (D, M, Q, and R) used the at the time 60-foot-long shuttle-only passenger loading zone in front of the 2209 Van Ness Avenue site. As of 2015, this shuttle zone has been reduced to a 40-foot-long shuttle zone. The remaining 20 foot-long white zone has been returned to the public for general parking. Observations during the midday period noted that there were no instances of shuttle buses double parking or stopping within the traffic lane on Van Ness Avenue, and passengers were able to board and alight at ease.[208]

Van Ness Avenue is not a designated bicycle route; thus the AAU shuttle stop and service on Van Ness Avenue do not directly conflict with bicycle traffic. Van Ness Avenue is used by Muni bus lines 47-Van Ness and 49-Van Ness/Mission with the combined frequency of every five minutes during the PM peak hour. Shuttle buses were observed to fully pull into the designated shuttle bus zone without substantial conflicts with Muni transit vehicles.

Pedestrian

The student housing land use at ES-5 generates 20 pedestrian trips, including seven walking, one transit and 12 shuttle trips during the PM peak hour. The 12 shuttle walking trips are short in length from the building entrance to the shuttle zone on Van Ness Avenue in front of the building. In addition, 25 shuttle riders (eight from 2211 Van Ness Avenue [ES-4] and 17 from 2151 Van Ness Avenue [ES-6]) walk to the ES-5 shuttle bus stop during the PM peak hour. Both Broadway and Van Ness Avenue are designated as High Injury Corridors under the City’s Vision Zero Improvement Plan.[209] Pedestrian facilities in the vicinity of this site include Van Ness Avenue, Vallejo Street, and Broadway, with approximately 16- and 10-foot-wide sidewalks respectively, and they are described under the adjacent AAU site, 2211 Van Ness Avenue (ES-4). Intersections near the AAU site have well-defined crosswalk markings, pavement delineations, and traffic lights. There is no curb cut bordering this site. The primary and the only pedestrian access to the site is from Van Ness Avenue through the gated doorway.

As indicated in the discussion of 2211 Van Ness Avenue (ES-4), pedestrian volumes in the area were observed to be generally low and no indications of overcrowding or conflicts were observed. The 20 pedestrian trips at ES-5, 14 pedestrian trips for the adjacent 2211 Van Ness Avenue (ES-4), and 35 pedestrian trips at the 2151 Van Ness Avenue (ES-6) add pedestrian volumes in the project area, but are accommodated on the adjacent 10- and 16-foot sidewalks. A recommended Condition of Approval to assess/monitor shuttle service is included below. If shuttle service could meet the demand at 2151 Van Ness Avenue (ES-6), students would not need to gather or wait for shuttles in front of the 2209 Van Ness Avenue (ES-5) residential building.

Bicycle

The student housing land use at ES-5 generates one bicycle trip during the PM peak hour. Van Ness Avenue is not a bicycle route. However, Route 25 on Polk Street and Route 210 on Broadway are located within one block of the site. The site’s one PM peak hour bicycle trip, even in combination with the one PM peak hour bicycle trip from the adjacent 2211 Van Ness residential site (ES-4) and

---

[208] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.
[209] *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

the one bicycle trip from 2151 Van Ness Avenue (ES-6), has not substantially affected the operation or capacity of bicycle facilities in the area. There is one bicycle rack located in the rear courtyard of the building with a total of nine Class II bicycle parking spaces.[210] Another bicycle rack could be accommodated in the rear courtyard. This site generates a demand for approximately three bicycle parking spaces, which are generally accommodated in the existing bicycle parking spaces.[211] Pursuant to Planning Code Section 155.2, the 56-bed student housing use at ES-5 is required to provide 14 Class I bicycle parking spaces.[212] Therefore, a Condition of Approval related to additional Class I bicycle parking is recommended below.

Loading

As with 2211 Van Ness Avenue (ES-4), the AAU student housing use at ES-5 generates limited freight loading demand (less than one daily truck trip). There are no on-street freight loading (yellow) spaces adjacent to the site. This site does not have any off-street loading spaces. It is likely that the infrequent commercial deliveries to the site utilize the nearest commercial zone such as the one located on the north side of Vallejo Street west of Van Ness Avenue, approximately 240 feet north of the AAU site. Additionally, there are approximately four white passenger loading spaces adjacent to the site, including 20 feet on the south side of Vallejo Street, 40 feet in front of ES-5 (used as a shuttle stop), and 16 feet on the north side of Broadway.

Site visits did not indicate regular freight/delivery activities to the site. Since parking utilization in the area is moderate to high during the midday period, any delivery vehicles are required to find available parking, which could be more than one block away. Due to the low daily delivery activity related to the residential use as noted during site visit and lower traffic volumes during weekday midday along Van Ness Avenue, loading demand is accommodated in areas near the site. As discussed in the Shuttle subsection, above, a recommended Condition of Approval is suggested to reduce the size of the white zone in front of 2209 Van Ness Avenue.

Garbage collection at this site occurs on the west side of Van Ness Avenue, located next to the entrance of the site. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection along Van Ness Avenue at this location occurs three times a week in the late night hours.

Parking

The AAU student housing use at ES-5 is not expected to generate parking demand throughout the day since students are discouraged from bringing private vehicles to San Francisco.[213] The site does not provide any off-street parking spaces. Although the site has not resulted in an increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site and other nearby AAU sites (2211 Van Ness Avenue [ES-4] and 2151 Van Ness Avenue [ES-6]) during a typical

[210] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[211] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[212] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

[213] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed on April 20, 2016.

weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces bordering ES-5 and the other nearby AAU sites at 2211 Van Ness Avenue (ES-4) and 2151 Van Ness Avenue (ES-6) are generally time limited (2-hour) and unmetered except for portions of Vallejo Street, Van Ness Avenue (between Broadway and Pacific Avenue) and Pacific Avenue which also have metered parking. Table 43 summarizes on-street parking supply and weekday midday occupancy for streets near ES-5 and other nearby AAU sites such as 2211 Van Ness Avenue (ES-4) and 2151 Van Ness Avenue (ES-6). There are a total of 55 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was very high, averaging about 95 percent between 1:00 p.m. and 3:00 p.m. However, the AAU student housing use at 2211 Van Ness Avenue is not expected to have substantially added to this existing condition. As indicated under the Shuttle discussion, a recommended Condition of Approval is suggested to reduce the size of the white loading zones in front of ES-4 and ES-5, potentially expanding the on-street parking and/or commercial loading spaces in front of the site.

Table 43. 2209 Van Ness Avenue – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Vallejo St	Franklin St	Van Ness Ave	South	6	6	100%
Van Ness Ave	Vallejo St	Broadway	West	6	6	100%
Broadway	Franklin St	Van Ness Ave	North	14	13	93%
			South	8	8	100%
Van Ness Ave	Broadway	Pacific Ave	West	5	5	100%
Pacific Ave	Franklin St	Van Ness Ave	North	16	14	88%
Total				**55**	**52**	**95%**

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

An off-street parking inventory is presented for the study area generally bounded by Union Street, Gough Street, Jackson Street, and Larkin Street. Table 44 shows there is one public off-street parking facility within the study area with a total of 111 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 44. 2209 Van Ness Avenue– Off-Street Parking Supply

Address	Type	Capacity
1650 Jackson St	Garage	111
Total		**111**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Emergency Vehicle Access

Similar to 2211 Van Ness Avenue (ES-4), San Francisco Fire Department Stations #38 (2150 California Street) and #16 (2251 Greenwich Street) are the closest stations to ES-5, approximately 0.4 miles north and south of the site, respectively. From the stations, vehicles are able to access the AAU site via Van Ness Avenue and would be able to park along Van Ness Avenue.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-5 include a potential need for additional shuttle service, a shuttle zone that is larger than needed, and a lack/limited amount of bicycle parking available at the site. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-5: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-5: TR-2, Shuttle Loading Zone. AAU shall shorten the existing 40-foot-long white zone in front of the 2209 Van Ness Avenue site since only Route M serves the site at this time and a regular shuttle stop per AAU's shuttle policy is typically 20 to 25 feet in length. The type of on-street parking created shall be coordinated with SFMTA.

Recommended Condition of Approval, ES-5: TR-3, Class I Bicycle Parking. AAU shall add a 14 Class I bicycle parking spaces at 2209 Van Ness Avenue. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 2209 Van Ness Avenue (ES-5) is immediately contiguous to ES-4 at 2211 Van Ness Avenue, another AAU residential site. ES-5 is located on the west side of Van Ness Avenue, approximately mid-block between Vallejo Street and Broadway in the Pacific Heights. The 6,368 square-foot site is located in a residential and commercial district. The shuttle stop serving ES-5 was in front of the building in 2010. ES-5 has 22 rooms, with approximately 56 beds. No vehicle trips are generated by the uses in ES-5; students use the AAU shuttle system, bicycles, and public transit.[214] According to the San Francisco Transportation Noise Map,[215] the existing traffic noise level near ES-5 from vehicular traffic along Van Ness Avenue was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along these streets

214 CHS Consulting Group, AAU ESTM Transportation Section Draft #1A, January 2016.

215 San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

currently exceed the "satisfactory" level for a residential land use, according to the *San Francisco General Plan.*

AAU did not install or modify any existing rooftop mechanical equipment at ES-5. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-5 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-5 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-5.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-5 residential building may have been subjected to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior noise level standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined analysis of air quality in Chapter 3, Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-5, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed operational in 1998, when AAU occupied the building. Area sources were estimated based on a 56 dwelling unit "Mid-Rise Apartments" land use designation in CalEEMod, representing approximately 50 occupants, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 1990 was conservatively assumed for ES-5. There are two on-site domestic hot water boilers at ES-5. Table 45 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-5, which are all shown to be below BAAQMD's daily and annual significance thresholds.

Table 45. 2209 Van Ness Avenue (ES-5) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.25	3.75	0.57	0.57	0.21	0.68	0.10	0.10
Energy	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	1.25	3.78	0.57	0.57	0.21	0.69	0.10	0.10
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1]. Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-5 is not one of those sites; therefore, AAU occupation of ES-5 has not resulted in increased health risks for nearby sensitive receptors, and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-5 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-5 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Sections 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-5: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-5 did not involve any new development or additions that changed the height or bulk of the existing structure and, therefore, did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-5.

Recreation

As shown on Figure 4, p. 3-63, 2209 Van Ness Avenue (ES-5) is located within 0.25 mile of two San Francisco Recreation and Park Department (RPD) parks: Allyne Park and Helen Wills Playground. Allyne Park, located at 2609 Gough Street, features a grass clearing, walking path and bench seating.[216] Helen Wills Playground, located at the corner of Broadway and Larkin Street, features a multi-functional clubhouse, play features, sports courts, and boardwalk.[217] Other publicly owned parks are within a 0.5-mile distance of ES-5, including Lafayette Park and Michelangelo Playground.

As described in Population and Housing on p. 4-134, the capacity of ES-5 is 56 beds. The change in use from single-family residential to student housing (group housing for a postsecondary educational institution) at ES-5 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Allyne Park and Helen Wills Playground facilities. In addition, AAU students and faculty access to recreational facilities is augmented by AAU private recreation room on-site, as well as facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other

[216] SF Curbed, Getting to Know Cow Hollow's Allyne Park. Available online at: http://sf.curbed.com/archives/2012/06/05/getting_to_know_cow_hollows_allyne_park.php. Accessed on January 15, 2016.

[217] San Francisco Recreation and Parks, Helen Wills Playground. Available online at: http://sfrecpark.org/destination/helen-wills-playground/. Accessed on January 15, 2016.

university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-5 receives water from the SFPUC water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[218] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-5. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[219] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-5 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is

---

[218] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[219] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

in the process of implementing new strategies to meet its zero waste goal by 2020.[220] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[221] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-5 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013, there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[222] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

2209 Van Ness Avenue has a capacity of 56 beds (22 group-housing rooms). The change in use from single-family residential to student housing (group housing for a postsecondary educational institution) within a RC-3 District would represent a slight increase in the population of the area. However, the change would not be substantial because the student housing capacity is limited by the space in the building (22 group-housing rooms). Therefore, additional police protection demand would be negligible. In addition, Department of Campus Safety staff would augment the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-5.

Fire and Emergency Services

ES-5 is located within 3,000 feet of Fire Station No. 41 (1325 Leavenworth Street) and Fire Station No. 38 (2150 California Street). Fire Station Nos. 38 and 41 both consist of a single fire engine.[223] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

---

[220] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[221] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[222] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[223] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

In 2011, Fire Station No. 38 responded to 510 non-emergency calls with an average response time of 6:47 minutes, with 90 percent of non-emergency calls responded to in under 12:31 minutes. Fire Station No. 38 responded to 1,662 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:14 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[224]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations within the vicinity of ES-5 meet the citywide emergency transport goals.

As described above on p. 4-134, the change in use from s to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new range fire suppression system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred. As a result of the change in use at ES-5.

Libraries

The nearest public libraries to ES-5 are the Golden Gate Valley Branch Library and the Marina Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

The change in use from single-family residential to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the daytime population of the area. Any change in population would be minimal compared to the service population for the Golden Gate Valley Branch and Marina Branch Libraries. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-5.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as a single-family residence may have contributed to the school-aged population. The change in use to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand to SFUSD, because AAU students are mainly unmarried and without children. No increase in the school-aged population would occur as a result of the change

[224] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

of use at ES-5. For the reasons stated above, no effect on schools has occurred as a result of the change in use at ES-5.

Biological Resources

ES-5 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-5. ES-5 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-5.

Geology and Soils

ES-5 is underlain by well-sorted, fine to medium grained dune sand.[225] The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable. The thickness of the dune sand is unknown but is estimated to be up to 100 feet and is underlain by bedrock. Depth to groundwater is unknown, and groundwater flow is anticipated to be northerly.[226] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-5 would be very strong during a magnitude 7.2 earthquake and strong during a 6.5 magnitude earthquake originating from the San Andreas Fault or Hayward Fault, respectively.[227,228] ES-5 is not located within a liquefaction zone.[229] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-5 is composed of wood with a stucco façade; it does not have a soft story and is not made of unreinforced masonry.[230, 231] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from single-family residential to student housing (group

---

[225] Geologica, Phase I Environmental Site Assessment for 2209 Van Ness Avenue, March 2003.
[226] Geologica, Phase I Environmental Site Assessment for 2209 Van Ness Avenue, March 2003.
[227] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[228] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[229] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[230] City and County of San Francisco, UMB – All Report, December 1, 2014.
[231] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

housing for a postsecondary educational institution) would not alter the building's performance during a ground shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-5 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of security bars, a metal fence, and a gate). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-5 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[232] ES-5 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-5.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-5 did not identify the presence of underground storage tanks (USTs) or significant historic use of hazardous materials located at the site.[233] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1912, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. No potential or suspected PCBs or LBP were observed on the property.[234] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is

[232] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[233] Geologica, Inc., Phase I Environmental Site Assessment for 2209 Van Ness Avenue, March 2003.
[234] Geologica, Inc., Phase I Environmental Site Assessment for 2209 Van Ness Avenue, March 2003.

unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-5 is a student housing building with a recreation room, and a kitchen and dining room. Hazardous materials that are used, stored, and disposed of at ES-5 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which do not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects on mineral resources or mineral recovery sites have occurred as a result of the change in use of ES-5.

Tenant improvements at ES-5 associated with the conversion of single-family home space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-150 – 4-151. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[235] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-5, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-5. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-5 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-5 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-5 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[236] The site is not designated as Prime Farmland,

[235] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 2209 Van Ness Avenue, March 4, 2016.

[236] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-5 has had no substantial effects on agriculture or forest resources.

4.2.6. 2151 Van Ness Avenue (ES-6)

Property Information

The 2151 Van Ness Avenue existing site (ES-6), St. Brigid Church, is a five-story, 27,912-square-foot building with an 80-foot-tall tower. ES-6 is located on the southwest corner of Van Ness Avenue and Broadway in the Pacific Heights neighborhood (Photographs 32 and 33). Figure 5, ES-6: 2151 Van Ness – Existing Condition, in Appendix TDM, shows the St. Brigid Church site and the adjacent streets. The building has a capacity of 989 occupants and is used by approximately 20 students per day for classes. The site is Lot 015 in Assessor's Block 0575.

ES-6 was vacant for 13 years before Academy of Art University (AAU's) occupancy in 2005. In 2010, AAU used the building, on a limited basis, as an auditorium and lecture facilities, with lecture classes held in the main auditorium area and studio classes in the basement area.[237] In 2016, AAU uses the building, on a limited basis, as an auditorium. Currently, the basement level is used for art studios and classrooms. The upper level is used occasionally by students for filming and photography upon request. The building, constructed between 1896 and 1897, is designated as City Landmark Number 252 and identified in the Van Ness Avenue Area Plan as a significant building. The site is served by AAU shuttle bus route M. AAU shuttle buses use the 40-foot-long white passenger loading zone fronting 2209 Van Ness Avenue (ES-5), approximately 175 feet north of ES-6.

The site is zoned RC-4 (Residential-Commercial-Combined, High-Density) and is within the Van Ness Special Use District. The RC-4 Zoning District allows high-density residential uses, senior housing, group housing including single room occupancy and student housing, retail uses on the first and second floors only, religious and other institutional uses and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D. ES-6 is located in the Van Ness Special Use District. The Van Ness Special Use District's focus is to implement the Van Ness Avenue Area Plan

Tenant Improvements and Renovations

During AAU's tenancy, the building has had asbestos abatement work and seismic retrofit upgrades. The metal security fence and stone steps were reconfigured. The stone step reconfiguration includes skateboard deterrents.[238] Plaster work was done on the ceiling in the nave to repair damage by leaks. Fire sprinklers were installed in the basement. AAU added acoustical tiles to the apse ceiling at an unknown date. The rear wall of the chancel was altered with the addition of drywall.[239] AAU installed an ADA lift and stairs on the Broadway side of the building, resulting in the removal of a portion of the low, granite wall. AAU installed a fire alarm and fire sprinkler system, and removed a small sign on the building's façade. AAU also refurbished the steel doors and arch at the main entrance.[240] Infill

[237] *2011 IMP*, p. 88.
[238] City and County of San Francisco, Historic Preservation Commission, 2151 Van Ness Avenue: St. Brigid Church, Case No. 2009.0097A, Motion No. 0006, February 5, 2009.
[239] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.
[240] Building Permits obtained for the improvements and renovations at ES-6 are: BPA #200512120068 (asbestos abatement), #200605091125 (entrance restoration), #200602074010 (plaster work), #200701171184 (seismic retrofit), #201104214564 (fire sprinklers), #201112150783 (fire alarm), and #201301248684 (sign removal).

Photograph 32. 2151 Van Ness Avenue (ES-6).

Photograph 33. Van Ness Avenue at Broadway Street, facing south.

of the southwest corner of the basement-level gymnasium to create an interior room occurred around 2011 without building permits.[241] Additional alterations to the basement included an ADA lift and carpeting, and were completed with a building permit.[242]

Required Project Approvals

The 2151 Van Ness Avenue existing site (ES-6) requires CU authorization under San Francisco Planning Code (Planning Code) Section 303 and Sections 209.3, and a building permit under Planning Code Section 171 to change the use from a religious institution to a postsecondary educational institutional use within an RC-4 Zoning District. All exterior alteration work has been permitted and a Certificate of Appropriateness (COA) is not required at this time for ES-6. Any unpermitted interior alterations would require a building permit that would be subject to historic preservation design review.

Plans and Policies and Land Use

ES-6 is located in the Pacific Heights neighborhood. The Nob Hill and Russian Hill neighborhoods are located on the east side of Van Ness Avenue, to the south and north of Broadway, respectively. In the immediate vicinity of ES-6 there are a mix of uses including residential, commercial, institutional, and hotel uses. Commercial uses include restaurants, offices, and some ground-floor retail along Van Ness Avenue. The ES-6 building was built between 1896 and 1897, is five stories, and is known as St. Brigid Church, San Francisco Landmark #252.

Van Ness Avenue is a major north-south thoroughfare that serves as U.S. 101 through San Francisco to Lombard Street and the Golden Gate Bridge. Near ES-6, Van Ness Avenue has three lanes in each direction with a planted median. Similarly, Broadway is an east-west arterial street with two lanes in each direction. The Van Ness Bus Rapid Transit Project is scheduled to begin construction in 2016 and will include 2 miles of dedicated transit-only lanes near ES-6 that separate transit from traffic, enhanced boarding platforms, and the installation of new traffic signals. Bus stops are located on the northeastern corner of Van Ness Avenue and Broadway, and the southwestern corner of Van Ness Avenue and Pacific Avenue).

Prior to the AAU occupation, the church had been closed since 1994. St. Brigid School, a private K-12 catholic school, is located adjacent and west of St. Brigid Church. A surface parking lot that serves the St. Brigid School is adjacent and south of ES-6.

The site is zoned RC-4 (Residential – Commercial, High Density). The RC-4 Zoning District allows religious and other institutional uses and hotels with a CU authorization, and entertainment and arts uses, among others. The zoning along both sides of Van Ness Avenue north of ES-6 is RC-3 (Residential – Commercial, Medium Density). RC-3 Zoning Districts provide for a mixture of medium-density dwellings with supporting commercial uses.[243] An RM-3 (Residential, Mixed, Moderate Scale) District is west of ES-6. RM-3 Districts have some smaller structures, but are predominantly devoted to apartment buildings of six, eight, ten, or more units.[244] ES-6 is located in

[241] Communication with AAU, Alteration Chronologies: List of Questions, February 2, 2016.
[242] San Francisco Planning Department Docket No. 2009.0097A.
[243] Planning Code Section 209.3.
[244] Planning Code Section 209.2.

the Van Ness Special Use District. The Van Ness Special Use District's focus is to implement the Van Ness Avenue Area Plan, which attempts to revitalize the area by encouraging new retail and housing to facilitate the transformation of Van Ness Avenue into an attractive mixed-use boulevard.[245] The height and bulk district for Van Ness Boulevard between Green and California streets is 80-D.

As noted above, the use of ES-6 has been changed by AAU from a religious institution to a postsecondary educational institution with an auditorium, classrooms, and studios. The change in use of the existing structure involved limited exterior alterations, including metal fence and stone step reconfiguration, described above under Tenant Improvements and Renovations. The use of ES-6 as a postsecondary educational institution conflicts with the Van Ness Special Use District, which encourages the development and maintenance of high-density housing along Van Ness Avenue. However, the Plan also guides development in a manner that is sensitive to architectural resources in the area and avoiding demolition or inappropriate alteration of historically or architecturally significant buildings, likely including ES-6.[246] The use of ES-6 as a postsecondary educational institution is consistent with the Van Ness Area Plan.

Change in use would not physically divide an established community; rather, localized changes in character could occur as the previous use as a church is altered to a postsecondary educational institutional use. Nevertheless, the church had been vacant since 1994. The change in use would intensify activities and introduce new patterns of use at the site. In addition, the change in use could increase AAU's presence in the area, as AAU occupies student housing properties at 2209 Van Ness Avenue (ES-5) and 2211 Van Ness Avenue (ES-4), approximately 175 feet north of ES-6.

A postsecondary educational institutional use is subject to approval by the Planning Commission as a CU within an RC-3 District. ES-6 would also require a building permit pursuant to Planning Code Section 171. Therefore the ES-6 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-6 would not result in any substantial effects on the environment.

<u>Population and Housing</u>

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-6 is 989 occupants; however, the building is used by up to about 20 students on a typical day. Thus, the analyses assume an occupancy of 20 people rather than the maximum legal capacity of the building. The change in use at ES-6 from a religious institution to a postsecondary educational institution would have minimally changed the daytime population because the religious institution (i.e., church) likely had a comparable capacity. AAU is essentially replacing the church building population; therefore, the daytime population of the site would be fundamentally unchanged. Similar to the previous church population that would primarily congregate once per week, the auditorium of ES-6 is currently used only for special events and the building is not fully

[245] Planning Code Section 243.
[246] Planning Code Section 243.

occupied on a daily basis. The remainder of the building includes classrooms and offices that represent only a small portion of the total capacity. Conservatively presuming that ES-6 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[247] No substantial effect on population has occurred from the change in use at ES-6.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-6 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from a religious institution to a postsecondary educational institution at ES-6 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-6 did not result in the displacement of housing because this site was previously used as a church.

Aesthetics

ES-6 is located along the Van Ness Corridor within the Pacific Heights neighborhood. ES-6 (i.e., St. Brigid Church) is a preserved example of Gothic Romanesque architecture, a style that originated in Europe in the nineteenth century that is based on medieval and early Christian Romanesque cathedrals of the eleventh and twelfth centuries.[248] The grand church is located in a visually prominent location on the southwestern corner of Van Ness Avenue and Broadway. ES-6 is bounded by Van Ness Avenue to the east, Broadway to the north, a surface parking lot to the south, and a four-story residential building to the west. The St. Brigid School building is located to the west of ES-6 at the intersection of Broadway and Franklin Street.

Van Ness Avenue (U.S. 101) is a major arterial roadway linking Lombard Street and the Golden Gate Bridge to the north and U.S. 101 to the south. In addition, other nearby streets including Franklin Street, Gough Street, Broadway, and Polk Street are all moderate- to heavily-traveled thoroughfares that link neighborhoods in the City. As such, vehicular traffic is a major contributor to the visual environment near ES-6.

Much of the streetscape is dominated by moderate-scale residential buildings with some neighborhood-serving retail and restaurant uses on the ground floor. Multi-story adjoining buildings are interspersed forming a consistent, urban façade with no setback from the sidewalk. A variety of architectural styles that include differing building materials and patterns, window patterns, and rooflines are present; however a majority of the buildings on the subject block appear older and were likely built pre-1960.

[247] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

[248] NoeHill, San Francisco Landmarks, Saint Brigid's Church. Available at http://noehill.com/sf/landmarks/sf252.asp. Accessed on October 13, 2015.

ES-6 is located on and viewable from Van Ness Avenue, which is designated as a street that defines City form and is important for significant building viewing.[249] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-6 has caused no visual changes to the building and neighborhood. The installation of security fencing and an ADA lift do not degrade the visual quality of the building or neighborhood. No exterior alterations are indicative of AAU use. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-6.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The church at 2151 Van Ness Avenue (ES-6) was first constructed between 1896 and 1897 as a rectangular building with small wings at the western end. Additions in 1902–1904, 1930, 1943–1947, and 1965 have turned the building into the irregular-shaped building seen today. Located on a rectangular, sloped lot and set flush to the sidewalk, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties and Broadway Street.

Comprising varying volumes and heights, the Gothic-Richardsonian Romanesque style building is highlighted by an interweaving of Celtic and Romanesque themes throughout. The primary volume features a cross-gable roof, rounded half dome above the apse, and a flat roof on the sacristy addition to the west. Clad in masonry, granite curbstones, and terra cotta wall cladding, the church has a five-story northeast corner of the lot and two-story flat roof tower on the southeast corner. The rooflines are marked by arcading. Characteristic of the style, the structure features detailed ornamentation of the entry portals, arched windows, and rose and arched windows. A central main entry with a detailed double-panel doors and a decorative stone surround with five concentric arches is featured on the primary elevation. Above the main entry is a row of deco style statues in arched niches, with the center niche standing taller than the rest, and a border molding. A rose window encircled by granite blocks is centered above the statues. Secondary entries flank the main entry on the ground floor of each tower with a pair of arched stained glass windows separated by a column above. Single narrow arched windows flank the main entry and define the upper stories of the northeastern tower. Ornamental Lombard bands are present on the gable ends and between the towers.

Secondary elevations are visible on the north, south, and west elevations. The north and south elevation feature tall arched arcades stained glass windows with surrounds along the nave. Smaller arcades of arched stain glass windows are located on the upper story of the north and south elevation along the nave and wrapping around the chancel on the west elevation. Rose windows with granite surrounds are located on the wings extending from the sanctuary. On the northern elevation, above the rose window is a V-shaped row of statues in arched niches with a border molding. Underneath the windows of the nave are single doors leading to the basement; there are four on the north elevation

[249] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

and one on the south elevation. Security fencing has been added in front of the nave between the towers and extending wings along the north and south elevations, restricting access to the basement doors. Access to the western elevation is restricted by a chain-link metal fence with an inset door. On the ground story of the western elevation, in the northern corner, is a metal double-door which currently functions as the primary entry. Stained glass windows in circular, rose, and arched window openings are found on the secondary elevations in various configurations.

The main entry leads to a small rectangular narthex, which opens to the nave through paneled wood double-doors. The interior of the church is primarily intact from its original construction. Original features throughout the nave and sanctuary include the spatial arrangement, vaulted barrel and groin vault ceilings, rounded chancel and half-dome ceiling, plaster wall surfaces, marble columns with Romanesque capitals spanning the nave, marble alter, ornamental light fixtures, and wood floor, pews, carved paneling, wood wainscot, decorative wood doors, and a string course of angles around the nave with arched windows separated by statues. Seismic bracing has been added with the stair of the northeastern and southeastern towers. The basement-level gymnasium and stage surrounded by a decorative arched opening are also intact (for representative photographs refer to Photographs 34–36).

Photograph 34. 2151 Van Ness Avenue.

Photograph 35. 2151 Van Ness Avenue, southeastern perspective of the north and west elevations

Photograph 36. Interior nave looking toward the narthex of subject property

Site History

The Romanesque-Richardsonian church at 2151Van Ness Avenue was constructed by the San Francisco's Roman Catholic Archdiocese for the parish of St. Brigid. The parish was founded in 1862 with the construction of the current church building beginning in 1896. The church was originally designed by the architectural firm of Shea and Shea.[250]

The architectural firm of Shea and Shea comprised brothers Frank T. Shea (1859–1929) and William D. Shea (1866–1931), who completed a number of works for the San Francisco Archdiocese. Notable projects includes 1822 Eddy Street, San Francisco (Holy Cross Catholic Church and Parish Hall, 1899), 221 Valley Street, San Francisco (St. Paul's, 1900–1902), 745 Waverley Street, Palo Alto (St. Thomas Aquinas Church, 1901), and 19 St. Mary's Avenue, San Francisco (Church of St. John the Evangelist, 1902).[251]

Work on the building was phased with the basement and foundation being constructed between 1896 and 1897 and the interior, and north and south sides of the interior constructed between 1902 and 1904.[252] In 1930, Henry A. Minton was commissioned to design the Romanesque Revival façade, as well as complete interior alterations to accommodate additional seating. A native of Boston, Minton (1914–1974) studied at Harvard and after the 1906 Earthquake and Fire, Minton headed west and eventually began working with the Shea brothers. In 1911, Minton struck out on his own, working primary for the Bank of Italy (Bank of America) and the Roman Catholic Archdiocese of San Francisco. Alterations that occurred after Minton included the replacement of stained glass windows in the 1940s and the construction of the upper story and roof of the corner tower in 1965.[253] Citing dwindling attendance and the need to seismically upgrade the building, the Archdiocese closed the parish in 1994. The building sat vacant for 11 years prior to AAU's occupancy in 2005.

[250] San Francisco Call, Father Cottle and St. Bridget's." March 23, 1896.
[251] Susan Dinkelspiel Cerny, *An Architectural Guidebook to San Francisco and the Bay Area* (Salt Lake City: Gibbs Smith, 2007).
[252] Anne Bloomfield, National Register of Historic Places Nomination Form for St. Brigid Church, May 1995. On file with the San Francisco Planning Department.
[253] Bloomfield 1995.

California Register of Historical Resources Evaluation

2151 Van Ness Avenue is an Article 10 designated landmark (No. 252). In addition, the property was determined individually eligible for the National Register of Historic Places (NRHP) under Criteria A and C by the Keeper and is listed in California Register of Historical Resources (CRHR). As part of the current study, the property also appears eligible for the CRHR under Criterion 1, for its association with Irish and Irish-American settlement and ethnic history in San Francisco (period of significance is 1896–1965). In addition, the property appears CRHR eligible under Criterion 3, as an exceptional example of the Gothic-Romanesque styles applied to ecclesiastical architecture (period of significance is 1896–1915).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[254] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 2151 Van Ness Avenue retains integrity and remains eligible for the NRHP and for the CRHR.

Character-Defining Features Summary

Exterior

- Scale and massing: comprising various volumes and heights and irregular plan that is flush with sidewalk
- Setback and siting: flush with sidewalk and set into hillside
- Cross-gabled roof on primary volume to east, and apse and flat roof on 1940 sacristy addition to west
- Fenestration: arched entryways on façade and rectangular doorways on north elevation; and arched and circular windows
- Granite block and terra cotta wall cladding
- Terra cotta ornament on entry portals and arched windows
- Ornamental Lombard band on gable ends and towers
- Ornamental columns spanning narthex between towers
- Stained glass windows in circular, rose and arched windows

Interior

- Spatial arrangement: narthex, nave, side aisles, chancel, sacristy, and transepts and choir gallery
- Vaulted ceiling (barrel and groin vaults)
- Rounded chancel and half-dome ceiling

[254] National Park Service, National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, National Register Branch, 1990.

- Plaster wall surfaces
- Wood floors, pews, carved paneling, and wainscoting
- Stringcourse of angels and heads
- Clerestory comprising carved angels
- Marble columns
- Marble altar
- Stained glass windows, arched and round rose windows
- Ornamental, hanging light fixtures
- Carved, wood pulpits
- Two organs (pipe organ on 2nd floor sanctuary) and pipes
- Original wood doors
- Basement-level gymnasium and stage with decorative arched opening

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Skateboard Deterrents: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Restoration of steel doors and arch at main entry: The project does not involve a change in use that resulted in major alterations to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

ADA Lift and Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Seismic Retrofit: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 2. Although this change resulted in minimal damage to historic materials, the skateboard deterrents are minimal in scale and appearance and do not negatively affect the historic character of the property.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 2. The project did not alter nor negatively affect the appearance or materials of the steel doors and arch, which are considered character defining.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 2. Prior to AAU's occupation of the building in 2005, historic photographs indicate that a non-original chain-link fence had been installed along the short granite wall that spans a portion of the north elevation, near an inset and below-grade area. Although installation of the current fence resulted in the removal of the non-character-defining chain-link fence, it also included the destruction of historic materials through the installation of the current fence poles and the partial removal of a small portion of the low-granite wall to the east. The project was limited to a recessed area of a secondary elevation however, and only included removal of a minimal portion of the low-granite wall, leaving the overall character of the feature intact. Installation of the security fence did not negatively affect the overall character of the low-granite wall intact and does not obscure character-defining features.

The ADA lift that was added to the property replaced a staircase that historic photographs indicate was introduced to AAU's occupation of the subject property. It is unclear from historic photographs if a staircase was historically present at this location; regardless, the staircase was located on a secondary elevation, on the ground level, and did not materially contribute to or affect the building's overall massing, scale, distinctive materials, or any other character-defining features. Replacement of the staircase with the ADA lift similarly has not introduced any visual feature to the subject property or negatively affected any of the features essential in its ability to convey its historical significance.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 2. The seismic retrofit introduced large steel bracing into the interior stairwells of the two towers at the northeast and southeast corners of the building. The bracing is only visible within these stairwells, which are considered secondary spaces, and are not essential in the ability for the property to convey its historical significance.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 3. The skateboard deterrents are clearly modern and do not result in a false sense of historical development.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 3. The project did not unduly alter the historic character or appearance of the steel doors and arch, nor did it introduce an architectural elements creating a false sense of historical development.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 3. These elements are clearly modern and do not result in a false sense of historical development.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 3. Although visible in a secondary interior space, the seismic bracing is clearly modern and does not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 4. Although not original, historic photographs indicate the steel doors and arch were added to the building prior to 1931 and within the period of significance (1896–1965). As architectural features that are representative of the church's expansion and associations with Irish and Irish-American settlement and ethnic heritage in San Francisco, they have acquired significance within their own right.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 5. The installation of the skateboard deterrents did not unduly damage or obstruct historic materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 5. The restoration of the steel doors and arch preserved the distinctive materials and features that characterize the property.

ADA Lift and Security Fence: The project does not comply with Rehabilitation Standard No. 5. The project involved the partial removal and destruction of the low-granite wall, an architectural feature composed of distinctive materials and finishes.

Seismic Retrofit: The project does not comply with Rehabilitation Standard No. 5. The project resulted in the partial removal and destruction of the wood stairs and historic ceiling materials, which were distinctive materials and features that contributed to the character of the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 6. Rather than replace the steel doors and arch, the project repaired these character-defining features and left them in place.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 9. The skateboard deterrents are generally compatible in scale and appearance, they do not unduly obscure character-defining features, and they are differentiated from the features that characterize the building.

Restoration of steel doors and arch at main entry: Rehabilitation Standard No. 9 is not applicable to this project.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 9. Prior to AAU's occupation of the building in 2005, historic photographs indicate that a non-original chain-link fence had been installed along the short granite wall that runs the length of a short inset, and below-grade area on the north elevation. This project included the damage to/removal of historic materials through the installation of the security fence poles and the partial removal of a small portion of the low-granite wall to the east. The project was limited to a recessed area of a secondary elevation, however, and only affected a minimal portion of the low-granite wall. The overall character of the low-granite wall remains intact.

The ADA lift replaced a staircase that, according to historic photographs, was introduced prior to AAU's occupation of the subject property. It is unclear from historic photographs if a staircase was historically present at this location; regardless, the staircase is located on a secondary elevation, on the ground level, and not highly visible from the public right-of-way. Similarly, the ADA lift is not highly visible from the public right-of-way, is differentiated and generally compatible with the size, scale, and proportion of the historic property.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 9. The seismic bracing is located in a stairwell that is a secondary interior space.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 10. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Restoration of steel doors and arch at main entry: Rehabilitation Standard No. 10 is not applicable to this project.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 10. Although installation of the ADA lift and security fence may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 10. Although the project resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Conclusion

The project complies with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-6 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU institutional building at 2151 Van Ness Avenue is located at the southwest corner of Van Ness Avenue and Broadway in the Pacific Heights neighborhood. The 21,492 square-foot site is located in a residential and commercial neighborhood and is adjacent to other residential commercial zoning districts (RC-3 and RM-3) to the north and south and a residential zoning district (RM-3) to the west. The approximately 20,100-square-foot, two-story St. Brigid Church building contains 27,912 gross square feet of AAU auditorium and lecture facilities. This site accommodates up to 54 students and four faculty/staff members on any given day.[255]

The site includes a 10-space at-grade parking lot, which is accessed via Van Ness Avenue. The parking lot is operated and used by the Sisters of St. Brigid and is not available to AAU or other users. The primary and the only pedestrian access to the site is from Van Ness Avenue through the gated doorway, and two secondary entries are provided along Broadway for access to the basement and sanctuary. There is one bicycle rack (approximately eight spaces) provided in the basement. There is no AAU shuttle stop provided at this site; however, shuttle service (Route M) is provided at 2209 Van Ness Avenue (ES-5), approximately 240 feet to the north.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the academic use at 2151 Van Ness Avenue generates approximately 44 person trips (19 inbound trips and 25 outbound trips) and seven vehicle trips (three inbound trip and four outbound trips) during the weekday PM peak hour.

Traffic

ES-6 has frontage along both Van Ness Avenue and Broadway. In the vicinity of ES-6, Van Ness Avenue and Broadway have a mixture of office, retail, institutional, and residential uses. Vallejo Street has mostly residential uses. Van Ness Avenue is also U.S. 101, which has heavy traffic during the morning and afternoon peak periods. Traffic volumes are moderate to heavy along Broadway, and are light along Vallejo Street. The heaviest traffic movements in the project vicinity are on the southbound Van Ness Avenue approach to Broadway eastbound, especially during the AM peak period and along Broadway in the westbound approach to Van Ness Avenue northbound in the PM peak period. There are two Muni routes in the vicinity of ES-6, 47-Van Ness and the 49-Van Ness/Mission, both of which operate along Van Ness Avenue.

The following presents a discussion of existing roadway systems in the vicinity of ES-6, including roadway designations, number of lanes, and traffic flow directions. The functional designation of

[255] The transportation analysis is based on 2010 data and is a more conservative analysis compared to the 20 students that use the building on any given day in 2016.

these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[256,257] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[258]

Van Ness Avenue is a north-south commercial throughway that runs between North Point Street and Market Street, where it becomes South Van Ness Avenue. Van Ness Avenue, in its connection with Lombard Street, is also designated as U.S. 101 through the City. Van Ness Avenue has three lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking in the vicinity of the AAU site. The *San Francisco General Plan* classifies Van Ness Avenue as a Major Arterial in the CMP Network; it is also part of the MTS Network, a Transit Preferential Street (Transit Important Street), part of the Citywide Pedestrian Network, and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network.

Vallejo Street is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of ES-6, Vallejo Street has one travel lane in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street.

Broadway is an east-west street that runs between The Embarcadero and Lyon Street. In the vicinity of the AAU site, Broadway has two travel lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies Broadway as a Major Arterial in the CMP Network. Broadway is designated as a High Injury Corridor in the City's Vision Zero network.

Pacific Avenue is an east-west neighborhood commercial/residential street that runs between Fifth Avenue and Front Street. In the vicinity of the AAU site, Pacific Avenue has one travel lane in each direction and a mix of metered and unmetered (2-hour restricted) parking on both sides of the street.

The academic use at ES-6 adds seven vehicle trips to adjacent streets during the PM peak hour. This level of contribution has not substantially altered existing operating conditions of streets or intersections in the area.

There is a curb cut on the west side of Van Ness Avenue for access to the 10-space parking lot on site. AAU does not have access to this parking lot, and it is exclusively used by the sisters of St. Brigid Church.

Transit

The academic use at ES-6 generates approximately 22 transit trips during the PM peak hour including nine trips in the inbound direction and 13 trips in the outbound direction. ES-6 is served by two Muni bus routes 10-Townsend and 12-Folsom/Pacific along Pacific Avenue, two routes 47-Van Ness and 49-Van Ness/Mission along Van Ness Avenue, and one route 19-Polk along Polk Street. The nearest bus stops are located at Van Ness Avenue and Pacific Avenue, and they include shelters and signage with transit information (see Figure 7, on p. 4-114). There are also eight Golden Gate Transit bus

---

[256] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[257] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[258] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

lines (e.g., Routes 10, 54, 56, 70, 72X, 93, 101, and 101X) that use the bus stop on Van Ness Avenue north of Broadway, one block from the ES-6 site.

Table 46 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. All five routes operate below the San Francisco Municipal Transportation Agency (SFMTA) performance standard of 85 percent capacity utilization during the PM peak hour. The 10-Townsend route, at 80 percent capacity utilization, approaches the SFMTA 85 percent capacity utilization performance standard during the PM peak hour.

Table 46. 2151 Van Ness Avenue (ES-6) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	Second St/ Townsend St	80%
12 – Folsom/ Pacific	24th St BART Station to Van Ness and Pacific via Folsom and Sansome	20	20	20	108	Harrison St/7th St	57%
19 – Polk	Hunter's Point to Fisherman's Wharf via Civic Center	15	15	15	124	Polk St/ Sutter St	49%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 10-Townsend would be re-named 10-Sansome, and would have increased frequency east of Van Ness Avenue from 20 to six minutes during the AM and PM peak period, and from 20 to 10 minutes during the midday period. It would also have a longer contraflow transit-only lane on Sansome Street.
- Route 12-Folsom/Pacific would be discontinued.
- The Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent (this project has been approved).

> Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The 22 PM peak hour transit trips generated by the AAU academic use at ES-6, in combination with the two transit trips from 2209 Van Ness Avenue (ES-4) and 2211 Van Ness Avenue (ES-5), are distributed to several routes and generally accommodated on existing transit service. There is no existing shuttle stop provided at this site, thus AAU shuttle service has not substantially conflicted with the operation of transit vehicles.

Shuttle

The academic land use at ES-6 generates approximately seven shuttle riders during the PM peak hour including three riders in the inbound direction and five riders in the outbound direction. Shuttle demand may be higher at other points of the day based on class schedules at this location. AAU shuttle route M currently runs adjacent to the site on Van Ness Avenue, but no shuttle stop is provided at this site. Instead, students walk approximately 210 feet to the shuttle zone located in front of the 2209 Van Ness Avenue site (ES-5) to catch the AAU shuttle bus. In 2010, this site was served by shuttle bus routes D, M, Q and R, with 20-minute, 60-minute, 30-minute, and 30-minute headways, respectively, throughout the day. The total seating capacity for these four routes was 299 seats in the PM peak hour. Routes D, M, Q and R operated at 30, 44, 29, and 18 percent capacity utilization, respectively, at the MLP during the PM peak hour. MLPs occur at 860 Sutter Street on Route D, at 860 Sutter Street on Route M, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. During the shuttle peak hour, routes D, M, Q and R operated at 64, 81, 96, and 55 percent capacity utilization, respectively, at the MLP. Due to excess capacity, one shuttle route (Route M) currently (2015) serves this AAU site. Route M operates with 20-minute headways with a 72 total seating capacity during the PM peak hour.

The seven PM peak hour shuttle riders at this site, in combination with the estimated 20 shuttle riders at the two nearby student housing sites (2209 and 2211 Van Ness Avenue [ES-5 and ES-6]) during the PM peak hour, are generally accommodated on this route. However, since this route also stops at other residential locations prior to this site, a Condition of Approval to monitor shuttle demand on this route (Route M) is recommended below under Existing Constraints and Proposed Conditions of Approval.

Pedestrian

The academic use at ES-6 generates 35 pedestrian trips, including six walking, 22 transit and seven shuttle trips during the PM peak hour. Both Broadway and Van Ness Avenue are designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[259] Pedestrian facilities in the vicinity of this site include Van Ness Avenue, Vallejo Street, and Broadway, with approximately 16- and 10-foot-wide sidewalks respectively. Intersections near this AAU academic site have well-defined crosswalk markings, pavement delineations, and traffic lights. There is a curb cut bordering the site on the west side of Van Ness Avenue with a driveway leading to an 10-space at grade parking

[259] *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

lot on the site. This parking lot is used by the Sisters of St. Brigid Church, and AAU does not use this parking lot. The primary pedestrian access to the site is from Van Ness Avenue through the gated doorway. Two secondary entries are provided along Broadway, which connect to the basement and sanctuary.

Observations noted no instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations during the weekday mid-day.[260] There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of this AAU site. As indicated under 2211 and 2209 Van Ness Avenue discussions (ES-5 and ES-4), pedestrian volumes in the area were observed to be generally low and no indications of overcrowding or conflicts were observed. The 35 pedestrian trips at ES-6 add pedestrian volumes to the area, in addition to the 20 pedestrian trips at the 2211 Van Ness site (ES-4) and 14 pedestrian trips for 2209 Van Ness Avenue (ES-5). These volumes, while noticeable, are able to be accommodated on the adjacent 10- and 16-foot-wide sidewalks. A recommended Condition of Approval to assess/monitor shuttle service is identified above. If shuttle service could meet the demand at ES-6, students would not need to gather or wait for shuttles in front of the 2209 Van Ness Avenue residential building.

Bicycle

The academic land use at ES-6 generates one bicycle trip during the PM peak hour. Van Ness Avenue is not a bicycle route. Route 210 on Broadway and Route 25 on Polk Street are located within one block of the site. The site's one PM peak hour bicycle trip, even in combination with the two PM peak hour bicycle trips from the nearby 2209 and 2211 Van Ness Avenue residential sites (ES-5 and ES-4), do not substantially affect the operation or capacity of bicycle facilities in the area. There is one bicycle rack located in the basement with a total of eight Class II bicycle parking spaces.[261] Although located in the interior of the building, the type of bicycle rack is not recommended (pursuant to San Francisco Planning Department guidance), because it is not considered secure bicycle parking. Furthermore, to access this parking, bicyclists must proceed down two short stairways and through two rooms to access the rack. This site generates a demand for approximately one bicycle parking space, thus the existing bicycle parking supply (eight spaces) is sufficient to meet the peak parking demand.[262] No bicycle parking is required for this site under the Planning Code.[263] A recommended Condition of Approval to design, locate and configure all bicycle parking spaces in compliance with Planning Code Section 155.1 through 155.4 is included in the Greenhouse Gas Emissions section on p. 4-180 – 4-181.

Loading

The academic use at ES-6 generates approximately three daily truck trips, which equates to approximately 0.1 trips in an average hour and 0.2 in the peak loading hour. The site does not provide any off-street loading spaces. However, the site does include a 10-space parking lot that is utilized

---

[260] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

[261] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[262] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[263] No additional bicycle parking is required because previous religious use is more intense in regard to bicycle parking requirement.

by the Sisters of St. Brigid Church. There is one on-street 20-foot-long freight loading (yellow) space on the west side of Van Ness Avenue immediately south of the driveway to the parking lot.

Field observations of loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU freight/delivery vehicles or related activities were observed and general commercial activity in the area was low with one freight/delivery vehicle parked in the freight loading zone on Van Ness Avenue during the observation. According to the parking analysis, on-street parking spaces along Broadway, Van Ness Avenue and Pacific Avenue experience moderate to high parking utilization during the midday period. Trucks making deliveries to this site have to find available on-street parking spaces in the vicinity, which could be more than one block away. Due to the low daily delivery activity related to this use and the generally low traffic volumes in the area during the weekday midday, loading demand could be accommodated in areas near the site.

Garbage collection at this site occurs on the south side of Washington Street, located next to the service entrance of the site. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection along Van Ness Avenue at this location occurs twice a week in the late night hours.

Parking

The AAU academic use at ES-6 generates a parking demand of approximately two parking spaces by commuter students. The site, even though it includes a parking lot, does not provide any off-street parking spaces.[264] The parking study area for this site is the same as the 2211 Van Ness Avenue site (ES-4) due to its proximity.

On-street parking spaces bordering ES-6 and the other nearby AAU sites at 2209 Van Ness Avenue (ES-5) and 2209 Van Ness Avenue (ES-4) are generally time limited (2-hour) and unmetered except for portions of Vallejo Street, Van Ness Avenue (between Broadway and Pacific Avenue) and Pacific Avenue which also have metered parking. Table 47 summarizes on-street parking supply and weekday midday occupancy for streets near ES-6 and other nearby AAU sites at 2209 Van Ness Avenue (ES-5) and 22211 Van Ness Avenue (ES-4). There are a total of 55 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was very high, averaging about 95 percent between 1:00 p.m. and 3:00 p.m. There is only one off-street parking facility in the vicinity with a total of 111 parking spaces. Parking occupancy at off-street parking facilities was not observed.

The demand for two parking spaces related to the academic use at 2151 Van Ness Avenue could be met with on- or off-street parking in the vicinity. However, parking spaces are in limited supply, and the AAU use at this site is expected to add to the overall parking demand in the area. A Condition of Approval is identified in Chapter 3 (p. 3-28) and described in detail in Appendix TDM at the end of this Memorandum to reduce staff and faculty vehicle trips as part of a Transportation Demand Management strategy to be applied to each of the existing sites; this Condition of Approval would also reduce the related parking demand.

---

[264] This parking lot is used by the Sisters of St. Brigid Church, and AAU does not use or control use of this parking lot.

Table 47. 2151 Van Ness Avenue – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Vallejo St	Franklin St	Van Ness Ave	South	6	6	100%
Van Ness Ave	Vallejo St	Broadway	West	6	6	100%
Broadway	Franklin St	Van Ness Ave	North	14	13	93%
			South	8	8	100%
Van Ness Ave	Broadway	Pacific Ave	West	5	5	100%
Pacific Ave	Franklin St	Van Ness Ave	North	16	14	88%
Total				**55**	**52**	**95%**
Note: Parking utilization above 100 percent indicates double parking or other illegal activity.						

Source: CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Stations #38 (2150 California Street) and #16 (2251 Greenwich Street) are the closest stations to ES-6, approximately 0.4 miles north and south of the site, respectively. From the stations, vehicles are able to access the AAU site via Van Ness Avenue and would be able to park along Van Ness Avenue and Broadway.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-6 include a potential need for additional shuttle service, and inconveniently located bicycle parking spaces available at the site. To address these constraints, the following Conditions of Approval are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-6: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-6: TR-2, Bicycle Parking. The bicycle rack in the basement of the building is not convenient to access. AAU shall add secured bicycle racks for students and staff at conveniently accessible locations (at grade level). Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 2151 Van Ness Avenue site (ES-6) is located at the southwest corner of Van Ness Avenue and Broadway in the Pacific Heights neighborhood. The former St. Brigid Church building is used by AAU as auditorium and lecture facilities. There are classrooms and studios in the basement of ES-6. This site accommodates up to 20 students on any given day. Shuttle service for this site is provided at the 2209 Van Ness Avenue AAU residential site, approximately one block away. According to the San Francisco Transportation Noise Map,[265] the existing traffic noise level near ES-6 from vehicular traffic along Van Ness Avenue was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-6. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-6 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-6 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-6.

Vehicular traffic noise at ES-6 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 210 trips per day.[266] According to the San Francisco Transportation Noise Map,[267] the existing traffic noise level near ES-6 from vehicular traffic along Van Ness Avenue and Broadway Street was approximately 75 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by occupation of ES-6 by AAU contribute approximately 41.7 dBA L_{dn} to local traffic noise levels. When the ES-6 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-6 has not substantially increased vehicular traffic noise in the vicinity.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (auditorium, lecture facilities) at ES-6, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have

[265] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[266] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[267] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

been operational in 2005,[268] when AAU occupied the building. Area sources were estimated based on a 27,912-square-foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 44 round trips per day. There is an on-site heating steam boiler at ES-6. Table 48 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-6, which are all shown to be below BAAQMD's daily and annual significance thresholds.

Table 48. 2151 Van Ness Avenue (ES-6) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.87	0.85	0.13	0.13	0.16	0.16	0.02	0.02
Energy	0.02	0.20	0.02	0.02	<0.01	0.04	<0.01	<0.01
Mobile	1.7	3.20	0.94	0.32	0.30	0.60	0.17	0.06
Total Emissions	2.59	4.25	1.09	0.47	0.46	0.8	0.19	0.08
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-6 is not one of those sites; therefore, AAU occupation of ES-6 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-6 for the change in use and

[268] AAU occupied the building beginning in 2005; therefore, for analysis purposes the building is assumed to have been operational as of that date.

associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU’s alterations at ES-6 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-6: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-6 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-6.

Recreation

As shown on Figure 4, p. 3-63, 2151 Van Ness Avenue (ES-6) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) parks: Allyne Park, Helen Wills Playground, and Lafayette Park. Allyne Park, located at 2609 Gough Street, features a grass clearing, walking path and bench seating.[269] Helen Wills Playground, located at the corner of Broadway and Larkin Street, features a multi-functional clubhouse, play features, sports courts, and boardwalk.[270] Lafayette Park, located at Gough and Washington streets, features grass lawns, tennis courts, playground, picnic tables, and an off-leash dog-play area. Other publicly owned parks are within a 0.5-mile distance of ES-6, including Hyde and Vallejo Mini Park and Washington and Hyde Mini Park.

As described in Population and Housing on pp. 4-162 – 4-163, the capacity of ES-6 is 989 occupants; however, approximately 20 students use the building at any given time. The change in use from a religious institution to a postsecondary educational institution at ES-6 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Allyne Park, Helen Wills Playground, and Lafayette Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-6 receives water from the SFPUC water supply facilities. The site had water service and consumption associated with the previous institutional land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[271] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-6. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from

[269] SF Curbed, Getting to Know Cow Hollow's Allyne Park. Available online at: http://sf.curbed.com/archives/2012/06/05/getting_to_know_cow_hollows_allyne_park.php. Accessed on January 2016.

[270] San Francisco Recreation and Parks, Helen Wills Playground. Available online at: http://sfrecpark.org/destination/helen-wills-playground/. Accessed on January 15, 2016.

[271] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[272] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-6 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[273] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[274] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-6 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent data available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[275] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

2151 Van Ness Avenue has a capacity of 989 occupants; however, the building is used by approximately 20 students on a typical day, and the upper level is occasionally used for filming and photography by appointment. The change in use from a religious institution to postsecondary

---

[272] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[273] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[274] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[275] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

educational institution would represent a change in the daytime population of the area, as church goers would primarily only be present on Sundays. However, the auditorium and lecture facilities are currently only used for special events and are not fully populated on a daily basis. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-6.

Fire and Emergency Services

ES-6 is located within 3,000 feet of Fire Station No. 41 (1325 Leavenworth Street) and Fire Station No. 38 (2150 California Street). Fire Station Nos. 38 and 41 both consist of a single fire engine.[276] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 38 responded to 510 non-emergency calls with an average response time of 6:47 minutes, with 90 percent of non-emergency calls responded to in under 12:31 minutes. Fire Station No. 38 responded to 1,662 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:14 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[277]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-6 meet the Citywide emergency transport goals.

As described above on p. 4-162 – 4-163, the change in use from a religious institution to postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-6.

Libraries

The nearest public libraries to ES-6 are the Golden Gate Valley Branch Library and the Marina Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

---

[276] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[277] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

As described above on p. 4-162 – 4-163, the change in use from a religious institution to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Any change in daytime population has been minimal compared to the service population for the Golden Gate Valley Branch and Marina Branch Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-6.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as a postsecondary educational institutional use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-6.

<u>Biological Resources</u>

ES-6 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-6. ES-6 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-6.

<u>Geology and Soils</u>

A Phase I Environmental Site Assessment (ESA) was not prepared for ES-6; however, the site is expected to have soil and groundwater conditions similar to nearby ES-4 (2211 Van Ness Avenue). ES-6 is likely underlain by well-sorted, fine to medium grained dune sand. The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable. The thickness of the dune sand is unknown but is estimated to be up to 100 feet and is underlain by bedrock. Depth to groundwater is unknown, and groundwater flow is anticipated to be northerly.[278] Building alterations at ES-6 involved the excavation of a three-foot footing, which involved the removal of minimal soil. No erosion or changes topography occurred from the footing construction.

[278] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-6 would be very strong during a magnitude 7.2 earthquake and strong during a 6.5 magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[279,280] ES-6 is not located within a liquefaction zone.[281] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-6 is a masonry building that underwent seismic upgrades in 2007 pursuant to the Unreinforced Masonry Building Ordinance.[282] Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from a religious institution to a postsecondary educational institution have improved the building's structural risk from ground-shaking.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-6 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of metal security fence, step reconfiguration, and door refurbishment). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. If the Southeast Water Pollution Control Plant approaches capacity, wastewater from the site flows to, and is treated by, the North Point Wet-Weather Facility. Flows to the North Point Wet-Weather Facility are treated in accordance with the City's NPDES Permit. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-6 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[283] ES-6 is not located in an area that is vulnerable to tsunami risk.

---

[279] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[280] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[281] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[282] Permit #200701171874 (seismic upgrades).

[283] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-6.

Hazards and Hazardous Materials

No Phase I ESA was prepared for ES-6. A search of Department of Toxic Control's Envirostor and the State Water Resources Control Board's Geotracker did not identify any underground storage tanks (USTs) at the site.[284] It seems unlikely that significant historic use of hazardous materials would have occurred, as the building was primarily used as a church since construction. A three-foot-deep footing was excavated during seismic upgrades; however, the amount of soil excavated would not have been subject to the Maher Ordinance. No other building alterations undertaken at the site by AAU involved any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1896-1897, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Prior to building alterations, materials were tested for ACM and LBP. No ACMs[285] were detected, although some LBP[286] was discovered in the nave and basement ceiling. Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-6 is used as an auditorium, classrooms, and studios. Hazardous materials that are used, stored, and disposed of at ES-6 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which do not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-6.

Tenant improvements at ES-6 associated with the conversion of church space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-180 – 4-181. The GHG Compliance

[284] State Water Resources Control Board, Geotracker, 2151 Van Ness Avenue. Available online at http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=2151+van+ness+avenue%2C+san+francisco%2C+ca. Accessed on January 29, 2016.
[285] Forensic Analytical, Bulk Asbestos Analysis, St. Brigid Church, December 29, 2005.
[286] Forensic Analytical, Metal Analysis of Paints, St. Brigid Church, December 28, 2005.

Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[287] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-6, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at nearby 2209 Van Ness Avenue (ES-5). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-6 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-6 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-6 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[288] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-6 has had no substantial effects on agriculture or forest resources.

[287] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 2151 Van Ness Avenue, March 4, 2016.

[288] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.7. 1849 Van Ness Avenue (ES-8)

Property Information

The 1849 Van Ness Avenue existing site (ES-8), also known as the "Warehouse," is a four-story, 107,908-square-foot building constructed in 1920, located on the southwest corner of Van Ness Avenue and Washington Street, in the Pacific Heights neighborhood (Photographs 37–40). Figure 6, ES-8: 1849 Van Ness – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The maximum building capacity is 695 occupants (645 students and 50 faculty and staff) assuming the museum space was fully occupied; however, it is typically used by fewer students (approximately 400) than this maximum capacity. The site is Lots 001 and 1B in Assessor's Block 0618.

Prior to Academy of Art University (AAU) occupation, the building was occupied by an automobile dealership, with sales on the ground floor and automobile service, repair, and inventory storage on the upper floors. Beginning in the 1960s the building was used as a furniture store, which is considered the last legal use.[289] AAU began occupying the building in 1998, and through the early 2000s the furniture store occupied the ground floor and AAU occupied the upper floors. In 2010, AAU used the building for classrooms, labs/studios, offices, an antique auto museum, an art store, a lounge, and a café. AAU currently uses the building for classrooms, labs/studios, offices, student and faculty lounges, and a classic car museum that is open to the public by appointment only. The mezzanine serves as a reception space on occasion. The site is served by AAU shuttle bus route M. AAU shuttle buses use the 65-foot-long white passenger loading zone fronting ES-8 along Van Ness Avenue.

The site is zoned RC-4 (Residential – Commercial – Combined, High Density) and is within the Van Ness Special Use District. The focus of the Van Ness Special Use District is to implement the Van Ness Avenue Area Plan. The RC-4 Zoning District allows high-density residential uses, senior housing, group housing including single-room occupancy, and student housing; retail uses on the first and second floors only; institutional uses and hotels with a conditional use (CU) authorization; and entertainment and arts uses, among others. The height and bulk district on either side of Van Ness Avenue between Green Street and California Street is 80-D.

Tenant Improvements and Renovations

AAU replaced the windows on the second through fourth floors in 2009 and added an internally lit light-emitting diode (LED) band sign and painted wall signs to the building's exterior. AAU subsequently removed a painted sign on the south-facing façade in 2011. In 2010 and 2011, AAU installed a fire sprinkler and alarm system, added walls and doors to the building's interior, and made other minor interior repairs in response to a Notice of Violation (NOV). AAU installed canopy at the

[289] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003, p. 13.

Photograph 37. 1849 Van Ness Avenue (ES-8).

Photograph 38. Van Ness Avenue at Washington Street, facing southeast.

Photograph 39. Mid-block Washington Street, facing east.

Photograph 40. Mid-block Washington Street, facing west.

rear of the building without building permits. [290] AAU also installed security cameras and flag poles on the ground-level Van Ness Avenue façade without building permits. A canvas awning and security fence were added at the west end of the north elevation without building permits. A replacement metal door roll-up door was installed by AAU at an unknown time. AAU may have installed four rooftop condensing units and two rooftop exhaust fan units without building permits.

Required Project Approvals

The 1849 Van Ness Avenue existing site (ES-8) would require a CU authorization under Planning Code Sections 209.3 and 303, and a building permit under Planning Code Section 171 to change the use from retail to a postsecondary educational institutional use within a RC-4 Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review

Plans and Policies and Land Use

ES-8 is located in the Pacific Heights neighborhood. The Nob Hill neighborhood is located on the eastern side of Van Ness Avenue. In the immediate vicinity of ES-8 is a mixture of uses including residential, commercial, and parking uses. Commercial uses include a furniture store; a bank branch; and several smaller, ground-level retail operations. The predominant land use is residential. Building heights range from two to 11 stories. The building fronts approximately half of Washington Street between Van Ness Avenue and Franklin Street. The ES-8 building was built in 1920, is four stories with a mezzanine level, and was historically used as a car dealership.

ES-8 is situated on Van Ness Avenue, a major north-south thoroughfare that serves as U.S. 101 through San Francisco to Lombard Street and the Golden Gate Bridge. In the vicinity of ES-8, Van Ness Avenue has three lanes in each direction with a planted median. Metered parallel parking is available on both sides of Van Ness Avenue and Washington Street. A white passenger loading zone is located directly in front of ES-8 along Van Ness Avenue. The Van Ness Bus Rapid Transit Project is scheduled to begin construction in 2016 and will include 2 miles of dedicated transit-only lanes near ES-8 that separate transit from traffic, and will included enhanced boarding platforms and the installation of new traffic signals. A bus stop is located on the southeastern corner of Van Ness Avenue and Clay Street.

By the 1920s, automobile-oriented businesses emerged as the most common use between Civic Center and Jackson Street along Van Ness Avenue. Since the 1970s, automobile-oriented businesses have declined as some automobile showrooms relocated to other areas within and outside of the City and County of San Francisco (the City). Former automobile showrooms have been converted to restaurants and offices, and some have been demolished for new mixed-use residential developments.

The zoning near ES-8 is RC-4 (Residential – Commercial – Combined, High Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses.[291] The

[290] Building Permits obtained for the improvement and renovations at ES-8 are: BPA #9921448 (signs), #200707278069 (windows), #201105095667 (canopy), #201005172567 (fire sprinkler), #201006033723 (fire alarm), #201105095662 (sign removal), #201005202903 (walls and doors), and #201004099960 (repairs in response to NOV #2010037398).

[291] Planning Code Section 209.3.

height and bulk district on either side of Van Ness Avenue between Green Street and California Street is 80-D. ES-8 is located within the Van Ness Corridor Planning Area and in the Van Ness Special Use District. The focus of the Van Ness Special Use District is to implement the Van Ness Avenue Area Plan, which attempts to revitalize the area by encouraging new retail and housing to facilitate the transformation of Van Ness Avenue into an attractive mixed-use boulevard.[292] However, the Plan also guides development in a manner that is sensitive to architectural resources in the area and avoiding demolition or inappropriate alteration of historically or architecturally significant buildings, likely including ES-8.[293] The use of ES-8 as a postsecondary educational institution is consistent with the Van Ness Area Plan.

ES-8 is located within the Van Ness Special Sign District, which prohibits roof signs, and limits the size, number, and location of signs.

As noted above, the use of ES-8 has been changed by AAU from a retail (furniture store) to a postsecondary educational institution, and is currently being used as a classic vehicle museum, classrooms, labs/studios, offices, student and faculty lounges, and reception space. The change in use of the existing structure involved exterior alterations, including painting AAU signage along the eastern and northern façades, installing a canopy, and erecting an electric sign, described above under Tenant Improvements and Renovations. The change in use of the site from retail (furniture store) to postsecondary educational institution would be compatible with the primarily residential and commercial uses of the RC-4 Zoning District. The use of ES-8 as a postsecondary educational institution conflicts with the Van Ness Special Use District, which encourages the development and maintenance of high-density housing along Van Ness Avenue. The change in use would not physically divide an established community; rather, localized changes in character could occur as the previous use as an automotive dealership is altered to a postsecondary educational institutional use. However, if the space continues to be used as a car museum, the use would be similar in atmosphere to a car dealership.

A postsecondary educational institutional use is subject to approval by the Planning Commission as a CU within an RC-4 Zoning District. ES-8 would also require a building permit pursuant to San Francisco Planning Code (Planning Code) Section 171. Therefore the ES-8 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-8 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-8 is 695 occupants (645 students and 50 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. The change in use may indirectly result in new residents

[292] Planning Code Section 243.
[293] Planning Code Section 243.

of San Francisco due to student and employment growth at the site. Occupation by AAU may have resulted in displacement of employees; however, retail space was likely found elsewhere. Conservatively presuming that ES-8 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[294]

The change in use at ES-8 from retail (furniture store) to a postsecondary educational institution would increase the daytime population because it is likely that the prior retail use had a relatively small staff (sales and administrative personnel). Therefore, AAU's change in use potentially increased the wholesale building population and daytime population of the site; however, as stated above, the capacity does not represent the aggregate population. No substantial effect on population has occurred from the change in use at ES-8.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-8 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from retail (furniture store) to a postsecondary educational institution at ES-8 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-8 did not result in the displacement of housing because this site was previously used as retail.

Aesthetics

ES-8 is located in the central part of San Francisco along the Van Ness Corridor and within the Pacific Heights neighborhood. The four-story building at ES-8 was built in 1920 and was historically used as a car dealership. ES-8 has large storefront windows on the ground floor with international flags hanging along the Van Ness Avenue façade. An LED sign with AAU advertising is above the storefront windows

The buildings in the vicinity are visually defined by a variety of land uses and associated building types, such as commercial, retail, restaurant, hotel, and residential uses. A variety of architectural styles including differing building materials and patterns, window patterns, and rooflines are present. ES-8 is bordered by Van Ness Avenue to the east, Washington Street to the north, a surface parking lot to the south, and a five-story residential building to the east.

Much of the streetscape is dominated by moderate and large-scale mixed-use development with retail and restaurant uses on the ground floor and residential uses above. Multi-story adjoining buildings are interspersed forming a consistent, urban façade with no setback from the sidewalk. The height of the buildings on the subject block and in the vicinity range dramatically from four stories (ES-8) to a nine-story residential building directly across Washington Street.

[294] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

Van Ness Avenue (U.S. 101) is a major arterial roadway linking Lombard Street and the Golden Gate Bridge to the north and U.S. 101 to the south. In addition, other nearby streets including Franklin Street and Gough Street are heavily traveled one-way thoroughfares that link neighborhoods in the City. As such, vehicular traffic is a major contributor to the visual environment near ES-8. ES-8 is located on and viewable from Van Ness Avenue, which is designated as a street that defines City form and is important for significant building viewing.[295] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-8 has caused minimal visual changes to the building and neighborhood. Due to the large showroom windows that front Van Ness Avenue, the showroom floor is highly visible to passing vehicular and pedestrian traffic on Van Ness Avenue and O'Farrell Street. The historic cars that are visible in the AAU museum are comparable to nearby car dealerships and former uses in the Van Ness Automotive Special Use District. In addition, an internally lit LED sign band and AAU flags have been installed at the property, representing AAU's visual presence. Nevertheless, AAU signage at ES-8 is comparable to the visual character of the area. Advertising located on signs, awnings, bus stops, and pole banners is prevalent within the neighborhood. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-8.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The former automobile showroom at 1849 Van Ness Avenue (ES-8) was constructed in 1920 with a large addition to the south completed in 1926, resulting in its current rectangular plan. It is set flush to the sidewalk on a rectangular, sloped lot, with a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties and Washington Street. The four-story structure is capped with a flat roof with a profiling cornice. On the primary elevation, the 1920 portion is composed of five bays of equal width, whereas the 1926 addition is composed of three bays with a wider middle bay. The main entry is a three-part aluminum framed glass folding door with transoms above. Large storefront windows line the first story with a smooth, unadorned frieze and cornice above, separating the first story from the upper stories. An LED band sign and flag poles have been added just below the cornice line. Non-original stacked multi-light windows on the upper stories are divided by vertical piers and paneled spandrels. Secondary elevations are visible on the north, south, and west elevations. The north elevation continues the fenestration pattern established on the primary elevation. The first story has three smaller storefront windows beginning at the eastern corner. Four long rectangular display windows flank a recessed aluminum framed glass double-door with sidelights and a transom. A double-door entry, accessed via a ramp with a security gate, and rectangular evenly spaced windows on the upper stories are extant on the west elevation. The south elevation has minimal fenestration of the eastern half and large, evenly spaced rectangular windows on the western half. Aluminum and metal multi-light with awning windows and fixed glass are present on the secondary elevations in a variety of configurations.

---

[295] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

The main entry leads to a large open showroom with tall ceilings. Tile and terrazzo floors differentiate the original portion from the 1926 addition. A non-original wood staircase in the addition leads to an open loft overlooking the showroom. A car ramp is located past the staircase and provides access to the rear showroom, which is differentiated with concrete floors and a lower ceiling. The upper stories have been altered to various degrees, largely the result of partitions added to create classrooms, workshops, and offices. Original extant features include a wood truss roof system on the top floor of the south wing, interior automobile ramps and elevator, and concrete floors with painted direction signs (for representative photographs refer to Photographs 41–43).

Photograph 41. 1849 Van Ness Avenue.

Photograph 42. 1849 Van Ness Avenue, detail of windows on ground level of primary elevation.

Photograph 43. Interior showroom of subject property.

Site History

1849 Van Ness Avenue (ES-8) was constructed in two phases. The original northern portion of the building was designed by Howard R. Schulze for L.D. Allen and developed in 1920–1921. Prior to his work on 1849 Van Ness Avenue, Schulze also designed another automotive-related property at 1133 Post Street (extant) for Allen and Company in 1917. Outside of these commissions and a small number of residences in Sea Cliff for Harry B. Allen, little is known about Schulze. The structural engineers and contractor for the initial phase was the firm of MacDonald and Kahn, which had offices in San Francisco and Los Angeles, and became known for specializing in reinforced concrete. Their expertise eventually led the firm to be chosen as one of six companies to build the Hoover Dam on the Colorado River between 1931 and 1935.[296]

Pacific Nash Motor Company, which was the northern California distributor of Nash automobiles, was the first to occupy the building.[297] In 1926 a 50-foot addition was constructed to the south to house the LaFayette luxury brand, owned largely by Nash.[298] Pacific Nash Motor Company occupied the building until 1936, at which time the building was sold to James E. French, owner of the J.E. French Company and distributor of Dodge and Plymouth automobiles in San Francisco.

French (1876–1965) began his automobile career while managing the Pennsylvania Rubber Company's tire stores in San Francisco.[299] When the Dodge Brothers began to manufacture

[296] William Kotsura, California Department of Parks and Recreation (DPR) 523 Series Form for 1839-1851 Van Ness Avenue, February 2009. On file with the San Francisco Planning Department
[297] San Francisco Chronicle, Auto Company to Build Home, June 12, 1920.
[298] Kotsura 2009
[299] Kotsura 2009

automobiles, French became the brand's first district manager in San Francisco and continued in the position of director of distribution by 1921. In 1922 he resigned to become a Dodge Brothers' distributer.[300] From 1922 to 1936 the J.E. French Company operated at 910 Polk Street before the dealership moved to 1849 Van Ness Avenue in 1936. At the same time, French expanded his showroom to sell Plymouth automobiles. During French's occupation of the building, he completed a number of improvement projects including the alteration of the ground-level storefront openings during the 1950s.

J.E. French Company eventually vacated the building in 1960 and by 1964, three different lessees had applied for building permits, including AAA Leasing Corp., Copenhagen House of Danish Furniture, and National Recreation Center. Historic photographs indicate that Copenhagen House of Danish Furniture occupied the ground level of the building through at least the 1980s, during which time they may have altered the showroom. Available information failed to identify the occupants of the building prior to AAU's occupation of the property in 1998.

California Register of Historical Resources Evaluation

In June 2009, 1849 Van Ness Avenue was recommended individually eligible for listing in the California Register of Historical Resources (CRHR).[301] The property was found to qualify under three CRHR criteria: for its use as an automobile showroom where important brands were sold (Criterion 1); for its association with James E. French, purportedly the most important dealer of Dodge cars in the history of San Francisco (Criterion 2); and for its design as an intact automobile showroom (Criterion 3).

The current study concurs with the 2009 recommendation and finds the property individually CRHR-eligible under Criterion 1, as an embodiment of automobile-related development along "Auto Row" on Van Ness Avenue. The property is also eligible under CRHR Criterion 2 for its association with notable San Francisco automotive dealer James E. French, and under Criterion 3 as an excellent, intact example of an automotive showroom along Van Ness Avenue. The period of significance is 1921 to 1960 and corresponds with the building's construction through its association with James E. French.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[302] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 1849 Van Ness Avenue retains integrity and remains individually eligible for CRHR listing.

300 *Automobile Topics*, vol. 65, February 18- May 13, 1922,.
301 William Kotsura, California Department of Parks and Recreation (DPR) 523 Series Form for 1839-1851 Van Ness Avenue, February 2009. On file with the San Francisco Planning Department
302 National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

Character-Defining Features Summary

Exterior

- Scale and massing: four-story height; rectangular plan
- Siting: flush with sidewalk along Van Ness Avenue and Washington Street
- Fenestration pattern: large storefront windows and rows of upper-level windows
- Paneled spandrels
- Vertical piers separating window bays
- Multi-light window configuration
- Stucco wall surface
- Cornice and smooth, unadorned frieze separating ground story and upper floors

Interior

- Large open showroom with tall ceilings
- Tile and terrazzo floors in showroom
- Car elevator
- Open interiors on upper levels
- Wood-truss roof system on top floor of original south wing
- Car ramp on south wing
- Wood staircase on south wing
- Concrete floors on upper levels with painted direction signs and numbering for automobiles

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations made by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

LED Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Upper-Level Windows: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Flags: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Canvas Awning and Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not block or damage distinctive character-defining features.

LED Signage: The project does not comply with Rehabilitation Standard No. 2. The expanse of exterior wall currently occupied by the LED signage is an important part of the building's overall appearance and vertical design composition, with the differentiated treatment of ground and upper stories. This expanse of exterior wall serves as a design element that defines the horizontal axis of the building at the street level and separates the ground floor and upper stories. This feature was added within the building's period of significance (1921–1960) and is considered character defining. In its current location the LED signage obscures the expanse of exterior wall and disrupts the building's design composition.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 2. Completed in 2009, this project previously received review and approval by City Preservation Planners. Historic photographs and some extant examples on the secondary elevations, indicate the original windows featured a multi-light configuration. This configuration is replicated in the new windows, preserving the distinctive character of the property.

Flags: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 2. The awning and fence are located on a rear, secondary elevation, and within a recessed portion of the building footprint. They are not clearly visible when viewing the building's primary elevations from Van Ness Avenue and do not obscure character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

LED Signage: The project does not comply with Rehabilitation Standard No. 3. Although the building displayed varying types of signage during the period of significance (1921–1960), this did not include signage of this type (LED lights), size, or prominence, installed on character-defining features of the building itself. The extant signage introduces a highly visible architectural feature on the primary elevation that is not consistent with the historic use or character of the property during its period of significance.

Upper-Level Windows The project complies with Rehabilitation Standard No. 3. The windows installed as part of the project replicate the character and multi-light configuration of the original windows and do not introduce an architectural element resulting in a false sense of historical development.

Flags: The project does not comply with Rehabilitation Standard No. 3. Historic photographs of the property indicate that there were no flag poles on the building's exterior during the period of significance (1921–1960). These features introduce an element that is inconsistent with the original use, design, and character of the building.

Canvas Awning and Security Fence: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the property did not have an awning or security fence on the building during the period of significance (1921–1960). These features introduce an element that is inconsistent with the original use, design, and character of the building.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. Given the small size of the cameras, their installation did not unduly damage or obstruct distinctive materials and features.

LED Signage: The project does not comply with Rehabilitation Standard No. 5. Installation of the wrap-around signage has resulted in damage to/removal of original, character-defining wall materials. Given its prominent location and size, the signage interrupts and detracts from the distinctive features and design of the façade.

Upper-Level Windows: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original multi-light windows, which were distinctive materials and features that characterized the property.

Flags: The project complies with Rehabilitation Standard No. 5. The installation of the flags did not unduly damage or obstruct character-defining materials and features.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 5. The installation of the awning frame and security fence did not unduly damage or obstruct distinctive materials or features.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Upper-Level Windows: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were failing. Rather than repair these character-defining features, the original windows were replaced with windows that are not consistent with the design, texture, and materials of the original design.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

LED Signage: The project does not comply with Rehabilitation Standard No. 9. Since the 1950s, when the exterior storefronts were remodeled to their current configuration, the expanse of exterior wall currently occupied by the LED signage served to ground and define the horizontal axis of the building at the street level and separate the ground floor and upper stories. This feature was added within the building's period of significance (1921–1960) and is considered character defining. Given the location and size of the LED signage, it obscures this expanse of exterior wall, which is an important element in the building's vertical design composition. Although the work is differentiated from the old, it is not compatible with the historic materials, features, size, and scale of proportion of the character-defining ground level. In addition, installation of the sign has likely resulted in damage to the historic sheathing material of the exterior wall.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 9. Although the project resulted in the loss of the original windows, the replacement windows are compatible with the historic materials, features, size, and scale of their original counterparts. The replacement windows replicated the original multi-light pane configuration, in compatible materials and overall appearance.

Flags: The project complies with Rehabilitation Standard No. 9. The flags are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 9. Located in a recessed area of a secondary elevation, the canvas awning and security fence are not clearly visible from Van Ness Avenue and views of the primary elevations. They are generally compatible in size and scale and do not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

LED Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the signage may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the new windows.

Flags: The project complies with Rehabilitation Standard No. 10. The flags are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 10. Although installation of the awning and security fence may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 1849 Van Ness Avenue (ES-8) into compliance with the Secretary of the Interior's Standards.

Recommended Condition of Approval, ES-8: HR-1, Signage. The LED signage shall be removed using the least invasive means possible, with care taken to avoid damage to adjacent historic materials, surfaces, and finishes; the wall materials and finishes shall be restored to match existing in appearance (including materials, texture, color, thickness, and application method).

Archaeology and Paleontology

Building alterations at ES-8 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The AAU institutional building at ES-8 is located on the southwest corner of Van Ness Avenue and Washington Street in the Pacific Heights neighborhood. The 13,680 square-foot site is located within a residential and commercial neighborhood. The approximately 107,908-square-foot, four-story building has a history of commercial land use. AAU has a classic vehicle museum on the first floor and classrooms, labs, art studios, offices, lounges, a café, and reception space uses on upper floors.[303] This site typically accommodates up to 399 students and 50 faculty and staff members at one time.

The site does not include any off-street parking. The site includes two loading spaces on Washington Street, one with a roll-up door and one that is gated off. The loading dock with a roll-up door is occasionally used to bring a vehicle in and out for photo shoots, and the gated loading dock is used for trash collection only. The primary pedestrian access to the site for students and faculty is from

[303] There is no plan to move the classic vehicle museum on the first floor as of January 2016.

Washington Street through the glass doorway. The entrance to the classic vehicle museum on the first floor is provided on the Van Ness Avenue side of the building. In addition, two secondary entries are provided along Washington Street: the roll-up door at the loading dock, and a door toward the west end of the building used for direct access to the third floor of the building. There are 30 single cycle racks (30 spaces) on the ground floor, which connects to the third floor of the building for a total of 30 Class II bicycle parking spaces. Additionally, one Class II public bicycle rack with two spaces is located on the Van Ness Avenue sidewalk. A 65-foot-long shuttle passenger loading zone (white zone) is located on Van Ness Avenue, used by one shuttle route (Route M).

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the museum and academic use at 1849 Van Ness Avenue generates approximately 492 person trips (189 inbound trips and 303 outbound trips) and 80 vehicle trips (29 inbound trips and 51 outbound trips) during the weekday PM peak hour.

Traffic

Land uses in the vicinity of ES-8 include a mix of office, retail, residential, and institutional uses. Traffic volumes along Van Ness Avenue are heavy during the AM and PM peak periods. Traffic volumes along Washington and Clay streets are light to moderate, as they connect to the core of Pacific Heights. Clay Street dead-ends at Lafayette Park, two blocks west of Van Ness Avenue. The site is three blocks, 860 feet, south of 2151 Van Ness Avenue (ES-6). Access to the two off-street loading docks is provided at a 45-foot-long curb cut on the south side of Washington Street. The San Francisco Municipal Transportation Agency (SFMTA) operates two Muni routes (47-Van Ness and the 49-Van Ness/Mission) along Van Ness Avenue, one route (10-Townsend) along Washington Street, and one route (1-California) along Clay Street. Four AAU shuttle bus routes (D, M, Q, and R) stopped in front of ES-8 in 2010 in the 65-foot-long white zone; however, currently (2015) only Shuttle Route M provides service at this and other Van Ness Avenue/Lombard Street residential and academic sites.

The following presents a discussion of existing roadway systems in the vicinity of ES-8, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[304],[305] Roadways identified under the Vision Zero San Francisco Two-Year Action Strategy are also noted.[306]

Van Ness Avenue is a north-south commercial throughway that runs between North Point Street and Market Street, where it becomes South Van Ness Avenue. Van Ness Avenue, with its connection to Lombard Street, is also designated as U.S. 101 through the City. Van Ness Avenue has three lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking in the vicinity of the AAU site. The *San Francisco General Plan* classifies Van Ness Avenue as a Major Arterial in the CMP Network; it is also part of the MTS Network, a Transit Preferential Street (Transit Important Street), part of the Citywide Pedestrian Network, and a Neighborhood Pedestrian Street

[304] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[305] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[306] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

(Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network..

Washington Street is an east-west neighborhood commercial and residential street that runs discontinuously between Arguello and Drumm Streets. Washington Street is also a Green Connections corridor connecting China Beach to the Bay. In the vicinity of the AAU 1849 Van Ness Avenue site, Washington Street has two eastbound travel lanes and metered parking on both sides of the street.

Clay Street is an east-west neighborhood residential street that runs discontinuously between Arguello and Drumm Streets. In the vicinity of the AAU site, Clay Street has one travel lane in each direction and unmetered (2-hour restricted) parking on both sides of the street. The *San Francisco General Plan* classifies Clay Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Network Connection Street.

The classic vehicle museum and postsecondary educational institutional use at ES-8 adds 80 vehicle trips (29 inbound and 51 outbound) to adjacent streets during the PM peak hour. No off-street vehicle parking is provided at ES-8. Therefore, AAU-related vehicle trips likely park on the street, where available, or at off-street parking garages (such as nearby public parking garages at 1650 Jackson Street or 1776 Sacramento Street). Based on this, the 80 PM peak hour trips are distributed among nearby streets. Based on the level and likely distribution of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU occupancy of ES-8.

Transit

The museum and postsecondary educational institutional use at ES-8 generates approximately 249 transit trips during the PM peak hour, with 93 trips in the inbound direction and 156 trips in the outbound direction. ES-8 is served by Muni bus lines 1-California, 19-Polk, 27-Bryant, 47-Van Ness, and 49-Van Ness/Mission. In the vicinity of ES-8, the 1-California bus travels along Clay Street, the 19-Polk along Polk Street, the 27-Bryant travels along Washington Street, and the 47-Van Ness and 49-Van Ness/Mission travel along Van Ness Avenue. The nearest bus stops to this site are located on Van Ness Avenue between Washington and Clay streets serving the 47-Van Ness and 49-Van Ness/Mission lines, on Clay Street west of Van Ness Avenue serving the 1-California line, and on Washington Street east of Van Ness Avenue serving the 27-Bryant line. They include shelters and signage with transit information (see Figure 7, on p. 4-114). Eight Golden Gate Transit bus lines (Routes 10, 54, 56, 70, 72X, 93, 101and 101X) use Van Ness Avenue, some with a stop on Van Ness Avenue just north of Broadway, 3 blocks north of ES-8, and others with a number of stops on Van Ness Avenue between Lombard Street and Civic Center.

Table 49 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. All these routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

Table 49. 1849 Van Ness Avenue – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
1 – California	Geary and 33rd via California, Sacramento and Clay	4	5	3.5	857	Sacramento St/ Powell St	79%
19 – Polk	Hunter's Point to Fisherman's Wharf via Civic Center	15	15	15	124	Polk St/ Sutter St	49%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, Fifth, and Leavenworth	15	15	15	116	Harrison St/ 8th St	46%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 1-California has increased daytime weekend frequency from 8 to 7 minutes. It is planned to also increase PM peak frequency west of Presidio Avenue from 7 to 6 minutes and east of Presidio Avenue from 3.5 to 3 minutes.
- Route 19-Polk would eliminate service south of 22nd Street.
- Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent (this project has been approved). Proposed improvements include a dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The 249 PM peak hour transit trips generated by the AAU museum and postsecondary educational institutional use at ES-8 are distributed to several routes. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, on p. 3-30, this increased transit demand, even in combination with transit trips from other AAU locations, has not made a substantial contribution to the existing transit service in the area. Based on the location of the shuttle passenger loading zone in front of the building, AAU shuttle service to the site has not substantially conflicted with the operation of transit vehicles on nearby streets.

Shuttle

The museum and academic land use at ES-8 generates approximately 66 shuttle riders during the PM peak hour, with 30 riders in the inbound direction and 36 riders in the outbound direction. Shuttle trips could be higher at different times of the day for this site, depending on class scheduling. In 2010, this site was served by four shuttle bus routes D, M, Q and R, with 20-minute, 60-minute, 30-minute, and 30-minute headways, respectively, throughout the day. The total seating capacity for these four routes was 299 seats in the PM peak hour. In 2010, routes D, M, Q and R operated at 30, 44, 29, and 18 percent capacity, respectively, at the MLP during the PM peak hour. During the shuttle peak hour, routes D, M, Q and R operated at 64, 63, 96, and 55 percent capacity at the MLP, respectively. MLPs occur at 860 Sutter Street on Route D, at 860 Sutter Street on Route M, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. Due to the limited ridership, AAU reduced shuttle bus service from four routes to one (Route M) to this and other Van Ness Avenue/Lombard Street sites. Route M operates with 20-minute headways with a total seating capacity of 72 over the PM peak hour, a 76 percent reduction in service from 2010.

Given this reduction in shuttle service and the other residential and academic buildings also served by this same route, it is unknown whether Route M can sufficiently serve the 66 shuttle trips produced by ES-8. Therefore, a Condition of Approval to assess and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand is recommended below under Existing Constraints and Proposed Conditions of Approval.

In 2010, the four shuttle buses used the 65 foot-long shuttle-only passenger loading zone in front of this site. The hours of operation for the shuttle bus zone are between 7:00 a.m. and 12:00 a.m. Monday through Sunday. Currently (2015) only one shuttle bus route (Route M) utilizes this white zone; therefore, a Condition of Approval to reduce this zone from 65 feet to 20 or 25 feet for use by one shuttle bus is recommended below. The remaining 40 to 45 feet of on-street curb space can then be returned, in coordination with SFMTA, to public parking or commercial loading spaces.

Van Ness Avenue is not a designated bicycle route; thus, the AAU shuttle stop and service on Van Ness Avenue does not directly conflict with bicycle traffic. Van Ness Avenue is used by Muni lines 47-Van Ness and 49-Van Ness/Mission with the combined frequency of every five minutes during the PM peak hour. Shuttle buses were observed to fully pull into the designated shuttle bus zone and passengers were able to board and alight with ease without substantial conflicts with Muni transit vehicles.[307]

Pedestrian

The AAU museum and institutional use at ES-8 generates 385 pedestrian trips, including 70 walking, 249 transit and 66 shuttle trips during the PM peak hour. The 66 shuttle walking trips are short in length from the building entrance to the shuttle zone on Van Ness Avenue in front of the building. Van Ness Avenue is designated as a High Injury Corridor under the City’s Vision Zero Improvement

[307] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

Plan, and Washington Street is part of the China Beach to the Bay Green Connections Corridor. Intersections near the AAU site have well-defined crosswalk markings, pavement delineations, and traffic lights, with the intersection of Van Ness Avenue and Washington Street having pedestrian walk signal heads. Sidewalks along Washington Street and Van Ness Avenue are approximately 15-16 feet wide, and Van Ness Avenue is lined with street trees along the border of the site. There is a 45-foot-long curb cut on the site at the loading area on Washington Street, which extends onto the adjacent property. The primary pedestrian access to the site for students is from Washington Street through the glass doorway. The entrance to the classic vehicle museum on the first floor is provided on the Van Ness Avenue side of the building. In addition, two secondary entries are provided along Washington Street, including the roll-up door loading dock entry and another entrance toward the west end of the building for direct access to the third floor.

Pedestrian volumes were observed to be generally low in the vicinity of ES-8 and pedestrians were observed to move freely along the sidewalk and within the crosswalk areas. There were no indications of overcrowding within the sidewalk areas, or a considerable amount of pedestrians standing outside of the AAU site or at nearby Muni bus stop shelters. Observations also noted no instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations.[308] Adjacent pedestrian facilities are 15 to 16 feet wide and likely accommodate the estimated 385 pedestrian trips (including to and from shuttle and transit service).

Bicycle

The museum and academic land use at 1849 Van Ness Avenue generates 14 bicycle trips, with seven trips in the inbound direction and ten trips in the outbound direction, during the PM peak hour. Van Ness Avenue is not a bicycle route. However, Route 25 on Polk Street is located within one block of the site. There are 30 single cycle racks (30 spaces) on the ground floor, which connects to the third floor of the building for a total of 30 Class II bicycle parking spaces. Additionally, one Class II public bicycle rack with two spaces is located on the Van Ness Avenue sidewalk. [309] This site generates a demand for approximately 21 bicycle parking spaces, thus the existing bicycle parking supply (30 spaces) is sufficient to meet the peak parking demand.[310] No bicycle parking is required for this site under the Planning Code.[311] To better serve the average daily population of 399 students and 50 faculty and staff, a recommended Condition of Approval is presented to relocate the bicycle racks to the ground floor in a more convenient location than the third floor or basement. No bicycle parking is required under the Planning Code for this site. In addition, a recommended Condition of Approval to design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4 is included in the Greenhouse Gas Emissions section on p. 4-212 – 4-213.

[308] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.
[309] Bicycle parking data was provided by AAU and verified by Planning Department staff.
[310] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.
[311] No additional bicycle parking is required because previous religious use is more intense in regard to bicycle parking requirement.

Loading

The museum and academic land use at ES-8 generates approximately 11 daily commercial truck trips, which equates to a loading demand of approximately 0.5 trips in an average hour or 0.6 trips in the peak loading demand hour.

AAU has two off-street loading spaces accessed from Washington Street. One, with a roll-up door, is currently used for classic car vehicle access to the building and on very rare occasions for photo shoots. The other off-street loading dock has been gated off and is used for trash collection.

Field observations of on- and off-street loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU-related freight/delivery vehicles or related activities occurred during the observation period, specifically on Washington Street, Van Ness Avenue and Clay Street. General commercial activity in the area was low along Washington Street and Clay Street due to residential uses, and was moderate along Van Ness Avenue serving ground floor retail and other commercial uses. Without the use of the off-street loading spaces, trucks making deliveries to this site would have to find available on-street parking spaces in the vicinity, which could be more than one block away. According to the parking analysis, on-street parking spaces along these adjacent streets experience moderate parking utilization during the midday period, which indicates that curb spaces could be available along these streets for loading activities.

Garbage collection at this site occurs on the south side of Washington Street, located next to the loading dock. Trash receptacles are kept within the gated loading dock area and placed along the sidewalk for garbage collection. Garbage collection along Washington Street occurs four times a week in the early morning hours.

Parking

The postsecondary educational institutional use at ES-8 generates a parking demand of 12 parking spaces (two spaces by faculty/staff and 10 spaces by commuter students). Tours of the classic vehicle museum on the first floor can be scheduled on Tuesdays from 11:00 a.m. to 1:00 p.m. and on Thursdays from 2:00 p.m. to 4:00 p.m. The site does not provide any off-street parking spaces. The museum space is not counted as off-street parking, as it is characterized as museum display area. An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces bordering ES-8 generally consist of a mix of time-limited (2-hour), metered and unmetered parking. Table 50 summarizes on-street parking supply and weekday midday occupancy for streets near ES-8. There are a total of 45 on-street parking spaces surrounding the site. During the survey period, average parking occupancy was generally high (about 73 percent) between 1:00 p.m. and 3:00 p.m.

An off-street parking inventory is presented for the study area generally defined as a two-block radius from ES-8. Parking supply data on off-street parking facilities was obtained from SFMTA's *SFpark* project. Table 51 shows there are three public off-street parking facilities with a total of 231 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 50. 1849 Van Ness Avenue – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Washington St	Franklin St	Van Ness Ave	North	12	7	58%
			South	15	10	67%
Van Ness Ave	Washington St	Clay St	West	4	2	50%
Clay St	Franklin St	Van Ness Ave	North	14	14	100%
Total				**45**	**33**	**73%**
Note: Parking utilization above 100 percent indicates double parking or other illegal activity.						

Source: CHS Consulting Group, 2015.

Table 51. 1849 Van Ness Avenue – Off-Street Parking Supply

Address	Type	Capacity
1898 Van Ness Ave	Lot	50
1650 Jackson St	Garage	111
1776 Sacramento St	Garage	70
Total		**231**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Some of the 12-space parking demand related to the AAU use could be met with on- or off-street parking. However, these spaces are limited in number and the AAU use at this building is expected to add to the overall parking demand in the area. Encouraging AAU to reduce staff and faculty vehicle trips by implementing Transportation Demand Management strategies as a Condition of Approval applicable to all of the existing AAU sites is summarized in Chapter 3 28) and described in detail in Appendix TDM at the end of this Memorandum. This Condition of Approval would also reduce parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #38 (2150 California Street) is the closest station to 1849 Van Ness Avenue, approximately 0.2 miles southwest of the site. From the station, vehicles are able to access the AAU site via California Street and Van Ness Avenue and would be able to park along Van Ness Avenue and Washington Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints and recommendations for potential conditions of approval for the AAU use of ES-8 include a potential shortfall in shuttle service; an on-street shuttle loading zone which, based on service, should be shortened; and bicycle parking in inconvenient locations. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-8: TR-1, Shuttle Service. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-8: TR-2, Shuttle Stop. Currently (2015) only one shuttle bus route (Route M) utilizes the 65-foot-long white zone; therefore, an improvement to reduce this zone to the typical 20 or 25 feet for the use by one shuttle bus. The 40 to 45 feet of on-street curb space should then be returned, in coordination with SFMTA, to public parking or commercial loading spaces.

Recommended Condition of Approval, ES-8: TR-3, Bicycle Racks. AAU reports the presence of 30 single cycle racks on the third floor of the building (which connects to the ground floor entry from Washington Street). AAU shall relocate these racks to the ground floor in a more convenient location and add signage to direct students to bicycle parking location(s). Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 1849 Van Ness Avenue site (ES-8) is located on the southwest corner of Van Ness Avenue and Washington Street in the Pacific Heights neighborhood. The AAU site has a classic car museum on the first floor and classrooms, and labs/studios, offices on the upper floors. This site accommodates up to 399 students and 50 faculty/staff members on any given day. In 2010, AAU shuttle routes D, M, Q, and R serve ES-8. As of 2015, AAU shuttle routes were revised and only M serves ES-8.These shuttle buses stop at 2209 Van Ness Avenue, a few blocks north, and 1849 Washington Street, around the corner. According to the San Francisco Transportation Noise Map,[312] the existing traffic noise level near ES-8 from vehicular traffic along Van Ness Avenue and Washington Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU operations at ES-8 may have resulted in the installation of four rooftop condensing units and two rooftop exhaust fan units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[313] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed

---

[312] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

[313] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.

to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the Noise Limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU and continue to be compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-8 building would be and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-8 would not exceed the standards established by the City for effects on sensitive receptors near ES-8.

Vehicular traffic noise at ES-8 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 800 trips per day[314]. According to the San Francisco Transportation Noise Map,[315] the existing traffic noise level near ES-8 from vehicular traffic along Van Ness Avenue and Washington Street was approximately 75 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by AAU occupation of ES-8 contribute approximately 52.3 dBA L_{dn} to local traffic noise levels. When the ES-8 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA generally are not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-8 has not substantially increased vehicular traffic noise in the vicinity.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, offices, art store, lounge, café) at ES-8, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1998, when AAU occupied the building. Area sources were estimated based on a 107,908-square-foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 800 round trips per day. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-8. There are no on-site generators or boilers at ES-8. Table 52 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen

314 CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
315 San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-8, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD')s daily and annual significance thresholds.

Table 52. 1849 Van Ness Avenue (ES-8) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$
Area	3.00	<0.01	<0.01	<0.01	0.55	<0.01	<0.01	<0.01
Energy	0.09	0.79	0.06	0.06	0.02	0.14	0.01	0.01
Mobile	27.53	34.17	0.42	1.55	5.09	6.54	0.76	0.27
Total Emissions	30.61	34.95	0.48	1.61	5.65	6.69	0.77	0.29
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.
ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-8 is not one of those sites; therefore, AAU occupation of ES-8 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-8 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-8 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-8: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-8 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-8.

Recreation

As shown on Figure 4, p. 3-63, 1849 Van Ness Avenue (ES-8) is located within 0.25 mile of two San Francisco Recreation and Park Department (RPD) facilities: Helen Wills Playground and Lafayette Park. Helen Wills Playground, located at the corner of Broadway and Larkin Street, features a multi-functional clubhouse, play features, sports courts, and boardwalk.[316] Lafayette Park, located at Gough and Washington streets, features grass lawns, tennis courts, playground, picnic tables, and an off-leash dog-play area. Other publicly owned parks are within a 0.5-mile distance of ES-8, including U.N. Plaza, Father Alfred E. Boeddeker Park, and Japantown Peace Plaza.

As described in Population and Housing on p. 4-192 – 4-193, the capacity of ES-8 is 695 occupants. The change in use from retail to postsecondary educational institution at ES-8 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Helen Wills Playground and Lafayette

[316] San Francisco Recreation and Parks, Helen Wills Playground. Available online at: http://sfrecpark.org/destination/helen-wills-playground/. Accessed on January 15, 2016.

Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-8 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous retail land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[317] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-8. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[318] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-8 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is

[317] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[318] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

in the process of implementing new strategies to meet its zero waste goal by 2020.[319] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[320] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-8 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent data available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[321] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The change in use from retail (furniture store) to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-8.

Fire and Emergency Services

ES-8 is located within 3,500 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 3 consists of a single fire engine and a truck. Fire Station No. 41 consists of a single fire engine.[322] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes,

---

[319] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[320] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[321] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[322] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

with 90 percent of emergency calls responded to in under 4:21 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[323]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-8 meet the Citywide emergency transport goals.

As described above on p. 4-192 – 4-193, the change in use from retail (furniture store) to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-8.

Libraries

The nearest public libraries to ES-8 are the Golden Gate Valley Branch and Chinatown Branch Libraries. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-192 – 4-193, the change in use from retail (furniture store) to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Any change in daytime population has been minimal compared to the service population for the Golden Gate Valley Branch and Chinatown Branch Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-8.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU to a postsecondary educational institutional use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has occurred as a result of the change in use at ES-8.

[323] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

Biological Resources

ES-8 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-8. ES-8 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-8.

Geology and Soils

ES-8 is underlain by well-sorted, fine- to medium-grained dune sand. The dune sands of San Francisco once formed an extensive coastal system, underlying about one-third of the City. The dune sand is typically highly permeable. The thickness of the dune sand is unknown but is estimated to be up to 100 feet and is underlain by bedrock. Depth to groundwater is unknown, and groundwater flow is anticipated to the north and northeast.[324] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-8 would be very strong during a 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[325,326] ES-8 is not located within a liquefaction zone.[327] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-8 is composed of reinforced concrete and is not a soft story building or made of unreinforced masonry.[328,329] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations completed after the change in use to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

[324] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003.
[325] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[326] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[327] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[328] City and County of San Francisco, UMB – All Report, December 1, 2014.
[329] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-8 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, canopy, flag poles, and security cameras). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-8 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[330] ES-8 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-8.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-8 identified one historic underground storage tank that had been removed in 1999 with no detected soil or groundwater contamination. At least one hydraulic lift associated with the historic automobile sales use is located underneath the building; however, testing concluded that a release of environmentally significant quantities of hazardous materials had not occurred.[331] Similarly, significant historic use of hazardous materials such as petroleum hydrocarbon (fuels, oils, etc.), solvents, and paints likely occurred over the years.[332] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth moving activities; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1920, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. Fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[333] Prior to building alterations, materials were tested for ACM and LBP and ACMs were

[330] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[331] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003.
[332] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003.
[333] Geologica, Inc., Phase I Environmental Site Assessment for 1835 Van Ness Avenue, March 2003.

detected in ceiling materials, whereas some LBP was discovered on several surfaces in the building.[334] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-8 for classrooms, labs, art studios, offices, student and faculty lounges, a café, reception space, and a classic vehicle museum. Hazardous materials that are used, stored, and disposed of at ES-8 include adhesives, wood stain, solvents, molds, lubricants, acrylic cement, polyurethane finish, propane, alcohol, cleaners, gloss, primer, paints, paint thinners, wood and plastic filler, and dyes associated with the postsecondary educational institutional use.[335] These products are stored in fire cabinets and lockers; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[336] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. ES-8 is enrolled in the SFDPH Hazardous Materials Unified Program Agency (HMUPA) Program.[337] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan (HMBP). Article 22 authorizes the SFDPH HMUPA to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-8 must be compliant with HMBP and HMUPA requirements, The SFDPH and SFFD inspect ES-8 to ensure compliance with applicable regulations. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-8.

Tenant improvements at ES-8 associated with the conversion of retail space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-212 – 4-213. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution

[334] RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 1849 Van Ness Avenue, June 8, 2010.
[335] Academy of Art, Hazardous Materials Inventory List for 1849 Washington Street, August 6, 2015.
[336] Academy of Art, Hazardous Materials Inventory List for 1849 Washington Street, August 6, 2015.
[337] Permit numbers: EPA# CAR000145904; CERS# 10058980.

Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[338] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-8, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-8. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-8 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-8 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-8 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[339] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use of ES-8 has had no substantial effects on agriculture or forest resources.

[338] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1849 Van Ness Avenue, March 4, 2016.

[339] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.8. 1916 Octavia Street (ES-9)

Property Information

The 1916 Octavia Street existing site (ES-9), also known as the "Coco Chanel Dormitory,"[340] is a four-story, 13,171-square-foot building constructed in 1898, located on Octavia Street between Sacramento and California streets, in the Pacific Heights neighborhood (Photographs 44–47). Figure 7, ES-9: 1916 Octavia St – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The building has 22 group-housing rooms and a capacity of 47 beds. The site is Lot 011 in Assessor's Block 0640.

Prior to Academy of Art University (AAU) occupation in 1996, the property had served as a guesthouse during World War II. In 1949, a hotel license was issued and the property was operated as a hotel/guesthouse through the 1980s. The last legal use was a residential hotel. The student housing building also has a manager's office, a laundry room, a study room, and a television room. The site is served by AAU shuttle bus route M. AAU shuttle buses do not have a designated parking zone and instead use available curb space along the east side of Octavia Street between Sacramento and California streets for passenger loading and unloading activities or double-park on the street if no curb space is available.

The site is zoned RH-2 (Residential, House, Two-Family), which is intended for one- and two-family homes, but also allows single-room occupancy (SRO) and student housing as principally permitted uses, with conditional use (CU) authorization required for more than two units per lot. The height and bulk district near ES-9 is 40-X.

Tenant Improvements and Renovations

AAU reroofed the building in 1995. On the interior, AAU upgraded the fire sprinkler system on all floors and installed a new fire alarm system in 2004, added guard rails to various locations for safety, made kitchen improvements, and replaced a bathroom and damaged wall to repair dry rot (no structural work was necessary). AAU added a canvas canopy that extends from the street to the main entrance steps and a non-structural sign was painted in 2011 without building permits.[341] A security fence, security cameras, lighting, and an awning on the rear elevation were added without building permits.

Required Project Approvals

The 1916 Octavia Street existing site (ES-9) would require a building permit under Planning Code Section 171; a legislative amendment to San Francisco Planning Code (Planning Code) Section

[340] *2011 IMP*, p. 95.

[341] Building Permits obtained for the improvements and renovations at ES-9 are: BPA #8413407 (kitchen improvements), #9519060 (reroofing), #200401063411 (fire sprinklers), #200406237190 (fire alarm system), #200809050890 (wall repair, permit withdrawn), #200908185083 (guard rails), and #200907152709 (bathroom replacement), #201105095664 (painted non-structural sign, permit never issued), and #201105095670 (legalize awning, permit never issued).

Photograph 44. 1916 Octavia Street (ES-9).

Photograph 45. Mid-block Octavia Street, facing north toward Lafayette Park.

Photograph 46. Mid-block Octavia Street, facing southwest.

Photograph 47. California Street at Octavia Street, facing east.

317(f)(1), the Student Housing Legislation, to allow for conversion of residential units to student housing; and CU authorization under Planning Code Sections 209.1 and 303 to change the use from residential hotel to student housing (group housing for a postsecondary educational institution) within an RH-2 Zoning District. A building permit is required for any tenant improvements to the building that were not permitted.

Plans and Policies and Land Use

ES-9 is located in the Pacific Heights neighborhood of San Francisco. The Western Addition neighborhood is located to the south of ES-9, on the southern side of California Street. The predominant land use near ES-9 are residential. Lafayette Park is approximately 100 feet north of ES-9. Building heights on the subject block range from three to six stories. The ES-9 building was built in 1898 and is four stories.

Octavia Street is a local street with one lane in each direction and parallel parking on either side of the street. Parking is limited to 2 hours for non-residential cars. Muni bus stops are located north of ES-9 on both sides of Sacramento Street, adjacent to Lafayette Park.

The zoning near ES-9 is RH-2 (Residential, House, Two-Family) on the eastern side of Octavia Street, and RM-2 (Residential, Moderate Density) on the western side of Octavia Street and fronting Sacramento Street between Laguna and Gough streets. RH-2 Zoning Districts are devoted to one-family and two-family houses, with the latter commonly consisting of two flats, one occupied by the owner and the other available for rent. In some cases, group housing and institutions are found in these areas, although nonresidential uses tend to be limited.[342] RM-2 Zoning Districts allow the overall density of units is greater and the mixture of building types and unit sizes is more pronounced in the RM-2 Zoning Districts. Building widths and scales remain moderate, and considerable outdoor space is still available.[343] The height and bulk district near ES-9 is 40-X.

As noted above, the use of ES-9 has been changed by AAU from a residential hotel to student housing (group housing for a postsecondary educational institution). The change in use of the existing structure involved exterior alterations, including installing a canopy and fence, described above under Tenant Improvements and Renovations. The change in use of the site to student housing (group housing for a postsecondary educational institution) remains representative of the primarily residential uses in the RH-2 and RM-2 Zoning Districts. However, the change in use at ES-9 conflicts with the Planning Code and requires a legislative amendment for conversion of residential units to student housing. Change in use would not physically divide an established community; rather, localized changes in character could occur as longer-term residents of the property would be replaced with short-term student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the Planning Commission as a CU within an RH-2 Zoning District. ES-9 would also require a building permit pursuant to Planning Code Section 171 and a legislative amendment to

[342] Planning Code Section 209.1.
[343] Planning Code Section 209.2.

Planning Code 317(f)(1), Student Housing Legislation, because the change in use would convert residential units to student housing. Therefore the ES-9 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-9 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-9 is 47 residents (22 group-housing rooms). The change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) would not substantially alter the daytime population of the building because the previous use as group housing would likely have had a similar capacity. However, the AAU rooms generally contain two beds, whereas the residential hotel would have likely contained one resident per room. Thus, student housing (group housing for a postsecondary educational institution) could have a slightly higher population density compared to the previous use. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-9 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[344] Thus, the change in population would be negligible. No substantial effect on population has occurred from the change in use at ES-9.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-9 and all existing sites is discussed under the combined housing discussion, p. 3-15 – 3-18.

The change in use at ES-9 from a residential hotel to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-9 could have resulted in displacement of people and existing housing units; however, the previous use as 22 group-housing rooms would not necessitate the need to construct replacement housing elsewhere. All former residents of the building moved to housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to

[344] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

meet the City's affordable housing needs. ES-9 provides 47 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of group-housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or SRO to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to student housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-9 is located in the Pacific Heights neighborhood. The building was constructed in 1898 as a four-story, single-family residence. The building is one of many extant large, single-family residences in San Francisco constructed prior to the 1906 Earthquake and Fire that have been converted to multi-family apartment buildings.

The vicinity around ES-9 is characterized by residential multi-family apartment buildings, two-family residential flats, and the 11.49-acre Lafayette Park. Many of the buildings are elegant and grand, and were built between 1880 and 1920 when construction of a cable car line made the area accessible. The character of the area is determined by the many fine quality apartment buildings that are of similar age and design. With the exception of ES-9, which has a setback with landscaping and a driveway, all buildings on the subject block extend to the sidewalk and create a continuous façade.

The topography is sloped steeply up toward Lafayette Park to the north, and sloped down toward the Western Addition neighborhood. Due to the residential character of the community and lack of commercial establishments, pedestrian and vehicular activity is relatively limited on Octavia Street compared to other areas of San Francisco. The neighborhood is generally quiet and residential. However, one block to the south, California Street is a main east-west arterial with moderate vehicular traffic throughout the day. The change in use has not substantially added pedestrian or vehicular activity to the area.

The change in use at ES-9 has caused minimal visual changes to the building and neighborhood. A canvas awning has been added that extends from the main entrance to the sidewalk, confined within the building's front yard. The awning contains the AAU logo and lettering. The AAU awning differs slightly from the visual character of the neighborhood, which is primarily residential with limited signage. However, similar signage, including an awning at the Grosvenor Court at 2055 Sacramento Street, occurs nearby and is representative of an urban environment and does not degrade the visual quality or block any important views. Therefore, no substantial effect has occurred from the change in use and the addition of the awning at ES-9.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

1916 Octavia Street (ES-9) consists of a four-story building with three major additions: a three-story addition abutting the east end of the main building's south façade, a one- and two-story rear addition adjoining the main building's east façade, and a detached one-story garage addition at the southeast corner of the property. The main building was constructed in 1898 and has a roughly rectangular footprint. The three-story addition was constructed c. 1902 (first and second floors) and c. 1957 (third floor). The one- and two-story rear addition was constructed c. 1910 (two-story section) and c. 1930 (one-story garage), and the garage opening was in-filled by 1999. The buildings occupy a rectangular lot fronting Octavia Street. A concrete drive lines the south side of the lot and leads to the detached garage addition. Modern fabric awnings over metal frames cover walkways to the entrance at the main building's south façade. Low brick walls surmounted by wrought-iron fencing are located at the front and south yards of the property (for representative photographs refer to Photographs 48–50).

Photograph 48. 1916 Octavia Street

Photograph 49. South façade, 1916 Octavia Street

Photograph 50. Three-story addition on south façade, 1916 Octavia Street

Site History

The three-story-plus-basement, brick, and wood-frame residence at 1916 Octavia Street (ES-9) was completed in 1898 at a cost of approximately $12,500.[345] It was designed by architect Frederick Herman Meyer, partner in the firm of Newsom & Meyer. The builder was Mallory & Swenson. The residence was commissioned by Bay Area businessman Adolph Mack, who purchased a 45- by 138-foot piece of land for the property in May 1898.[346] See Owner/Occupant History for more biographical information on Adolph Mack in Appendix HR. In December 1898, Mack paid $6,000 for an additional 30- by 38-foot piece of land, which expanded his Octavia Street frontage to 75 feet.[347] With the purchase of the additional lot, the Mack residence had a buffer along the south elevation, which faces California Street and, at the time, would have had views overlooking the City.

A few years after the residence was completed, the *San Francisco Chronicle* described it as "handsome" and located within a "fashionable residence district."[348] The interior was "very handsome, the finish being in mahogany and oak. The floors are of hard wood."[349] Servant quarters were on the first floor, bedrooms were on the third floor. The main entrance was covered by a portico.[350]

Adolph Mack sold the 1916 Octavia Street residence in September 1902 for approximately $50,000.[351] It was purchased by prominent San Francisco businessman Eugene J. de Sabla Jr., who helped found Pacific Gas and Electric (PG&E) in 1905.[352] This was one of two residences owned by de Sabla, the second a summer home in San Mateo called El Cerrito. (See Owner/Occupant History

345 San Francisco Call, New Building Contracts, June 15, 1898.
346 San Francisco Chronicle, Real Estate and Building. May 7, 1898.
347 San Francisco Call, Real Estate Transactions, December 10, 1898.
348 San Francisco Chronicle, Burglars Make Visit to Eugene de Sabla, April 16, 1903.
349 San Francisco Call, Many Exchanges Made in Realty, September 28, 1902.
350 San Francisco Chronicle, April 1903.
351 San Francisco Call, September 1902
352 National Park Service, "De Sabla, Eugene J., Jr., Teahouse and Garden," Asian Pacific American Heritage Month, National Park Service, www.nps.gov/nr/feature/asia/2010/sabla_tea_house.htm. Accessed November 13, 2015.

for more biographical information on Eugene de Sabla Jr.) Either Mack or de Sabla commissioned a two-story addition on the south side of the house, which appears on the 1905 Sanborn Fire Insurance Company map. Beginning in 1906, de Sabla and his family lived full-time in San Mateo.

In 1909 they sold the Octavia Street residence to Max J. Brandenstein, founder of MJB Coffee Company.[353] The Brandensteins lived in the house for 16 years until Max's death in 1925. The only known alterations during the Brandenstein period were a two-story addition at the east façade, constructed c. 1910, and a rectangular structure (possibly a carport or covered walkway) to the east side of the south wing. (See Sanborn maps: 1899 and 1913.)

Beginning c. 1929, the house was owned by Clara Herrscher, widow of Joseph Herrscher. Herrscher lived in the house with her daughter and grandson, Emma and Melvyn Friendly, her sister, Lilly Hesser, and two servants.[354] The Herrscher/Friendly families lived in the house through 1944. They were responsible for the construction of a 20- by 20-foot detached garage building at the southeast side of the property in 1930. Additionally, they likely added the one-story garage addition at the east façade, constructed c. 1930 (Sanborn map: 1913, and aerial photograph: 1938).

In the mid-1940s, 1916 Octavia Street was converted into an apartment house/long-term resident hotel. The conversion into a multi-resident building resulted in the following known alterations:

- conversion of the garage addition into housing, sometime between 1950 and 1968 (1950 and 1968 Sanborn maps);
- installation of fire escapes, pre-1963 (Permit No. 286307);
- installation of bathroom on fourth floor of guest house, 1967 (Permit No. 311954);
- addition of a small, single-story building to the north of the former garage, 1950–1968 (1968 Sanborn map);
- addition of a third story on the south addition, pre-1964 (1964 Junior League Survey photograph);
- new bathroom, location unknown, 1970 (Permit No. 350816);
- reduced parcel boundary line at the east in the mid-1970s when the Jacqueline Court Apartments building was constructed (1999 Sanborn map); and
- kitchen remodel, 1983 (Permit No. 504179).

AAU occupied the property in 1996. Alterations to the property completed by AAU are listed in the Tenant Improvements and Alteration section on p. 4-221.

California Register of Historical Resources Evaluation

At the neighborhood level, the residence at 1916 Octavia Street (ES-9) is one of many residential properties associated with late nineteenth century architectural development in Pacific Heights. The building is one of only two nineteenth century buildings on the 1900 block of Octavia Street. New construction on the block over time, especially between 1913 and 1929, has resulted in a non-

[353] San Francisco Call, E.J. de Sabla Sells His City Residence, December 27, 1909.
[354] Ancestry.com, 1930 and 1940 United States Federal Census [database on-line] (Provo, UT, USA): Ancestry.com Operations, Inc., 2012.

cohesive collection of apartment buildings and single-family residences constructed over a 70-year period. The visual character of both the 1900 block of Octavia and the subject property were further compromised with the introduction of the 10-story Jacqueline Court Apartments at 2055 Sacramento Street in 1975, immediately east of 1916 Octavia Street. Individually, the residence at 1916 Octavia Street is not an outstanding example of a nineteenth century residence constructed in Pacific Heights. Therefore, the building at 1916 Octavia Street does not appear to be eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) under Criteria A/1 for an association with early architectural development in Pacific Heights, either as a contributor to a potential district or individually.

The residence at 1916 Octavia Street is associated with three pioneers of San Francisco industry: Adolph Mack, president for 25 years of Mack & Company, a wholesale drug company; Eugene de Sabla Jr., cofounder and first president of PG&E; and Max J. Brandenstein, founder of MJB Coffee Company. Regarding an association with Adolph Mack, Mack lived at 1916 Octavia Street briefly (1899–1902). Research did not reveal that Mack, nor his company Mack & Company, are significant in local, state, or national history. Mack & Company was one of many companies founded in San Francisco in the nineteenth century. Therefore, the residence is ineligible for listing in the CRHR under Criterion 2 based on association with Mack.

Regarding an association with Eugene de Sabla Jr., although the 1916 Octavia Street residence was his primary residence when he cofounded PG&E in 1905, de Sabla lived in the house briefly (1902–1906). It appears to have been a temporary home while he commissioned a large mansion for his family in San Mateo. Furthermore, de Sabla's significance derives from his association with PG&E, so a more appropriate building encapsulating PG&E history in San Francisco would be the PG&E headquarters building at 201–245 Market Street, completed in 1924 (listed in the NRHP, 1995). For this reason, the residence is ineligible for listing in the CRHR under Criterion 2 based on association with de Sabla.

Regarding an association with Max J. Brandenstein, the Brandensteins lived at 1916 Octavia Street from 1909 until his death in 1925, a period during which he was president of MJB Coffee Company. Although MJB Coffee was a successful San Francisco company, it was at least the third company to produce or distribute coffee in San Francisco. By the time MJB Coffee was founded, the coffee industry had been developing by almost half a century. Furthermore, unlike Hills Brothers, which transformed the coffee industry by introducing the innovative method of vacuum-packing beans, MJB does not appear to stand out as significant among the other early producers. Additionally, similar to Eugene de Sabla Jr., Brandenstein's significance is based on his association with MJB Coffee—a significance that would be better conveyed in a building related directly to the company (e.g., production facility or corporate headquarters). Therefore, 1916 Octavia Street's association with Max J. Brandenstein does not qualify the residence for listing in the CRHR under Criterion 2.

The residence at 1916 Octavia Street is associated with a locally significant architect, Frederick H. Meyer. However, this is not an outstanding example of Meyer's work. He designed the 1916 Octavia Street residence very early in his career. Furthermore, alterations to the building—specifically wholesale removal and replacement of original windows, as well as additions to the rear façade—and intrusions into the open space to the south have affected the original 1899 design of the building. Therefore, the building at 1916 Octavia Street does not appear to be eligible for listing in the CRHR under Criterion 3 for an association with architect Frederick Meyer.

Because ES-9 does not appear eligible for CRHR listing, it is not considered a historical resource and no analysis of known alterations made by AAU was conducted for compliance with the *Secretary's Standards for Rehabilitation.*

Archaeology and Paleontology

Building alterations at ES-9 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-9 is located on the east side of Octavia Street between Sacramento and California streets, ½ block south of Lafayette Park and four blocks west of Van Ness Avenue in the Pacific Heights neighborhood. The 9,750 square-foot parcel is located in a residential district. The last registered use at the approximately 11,544 square-foot building on the front of the site, built in 1898 and expanded with additions in 1902 and 1910, was an elder care facility. AAU is utilizing the total approximately 13,171 gross square feet of the front building and the guest house for 47 beds of student housing.

The site includes a gated driveway, which leads to the rear guesthouse/separated housing unit (originally a garage). AAU reports that there is no vehicle parking provided at the site, but the driveway is occasionally utilized by maintenance vehicles and service vendors, and sometimes by parents to drop off students and their belongings. The only pedestrian access to the site is provided from Octavia Street through the gated driveway. There are two bicycle racks (six spaces) in the back courtyard area. While AAU shuttle bus Route M provides service to the site, this AAU student housing location does not include a designated shuttle stop. It is reported that the AAU shuttles stops at an available curb space adjacent to the site or double parks.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use (47 beds) at ES-9 generates approximately 26 person trips (12 inbound trips and 14 outbound trips) and, given the student housing use, no vehicle trips during the weekday PM peak hour.

Traffic

The vicinity of ES-9 is mostly residential. Octavia Street in this location is a low traffic volume street because it dead-ends at Sacramento Street/Lafayette Park to the north. Sacramento Street has light to moderate traffic volumes. No transit runs on Octavia Street in this location; however, the 1-California Muni route runs on Sacramento Street to the north, as further discussed below. AAU shuttle bus Routes M and R stopped at this location in 2010, but only Route M serves this site in 2015.

The following presents a discussion of existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[355,356]

Sacramento Street is an east-west street that runs between Arguello and Drumm streets. In the vicinity of ES-9, Sacramento Street is a neighborhood residential street with one travel lane in each direction and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies Sacramento Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Network Connection Street.

Octavia Street is a north-south street that runs discontinuously between Bay and Sutter streets. In the vicinity of ES-9, Octavia Street is a neighborhood residential street with one travel lane in each direction and unmetered (2-hour time restricted) parking on both sides of the street.

California Street is an east-west street that runs between 33rd Avenue and Drumm Street. In the vicinity of ES-9, California Street is a residential throughway under the *Better Streets Plan* with two travel lanes in each direction and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* identifies California Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network.

The student housing use at ES-9 is not expected to generate a substantial amount of vehicle trips to adjacent streets during the PM peak hour because residential students are discouraged from driving private automobiles. Traffic operating conditions in the vicinity have not been altered by the student housing use at this AAU site.

Transit

The AAU student housing use at ES-9 generates approximately one transit rider during the weekday PM peak hour. This is primarily due to residential students utilizing AAU shuttles, including on weekends. In the vicinity of ES-9, the 1-California provides east-west service to Downtown, but also connects to many other local routes including the 47-Van Ness and 49-Van Ness/Mission (three blocks away) along Van Ness Avenue and 19-Polk along Polk Street. These north-south routes connect to Muni and BART rail service along Market Street. The nearest bus stop to this site is located at the Sacramento and Octavia street intersection (approximately 80 feet to the north), and it includes a shelter and signage with transit information (see Figure 7, on p. 4-114).

Table 53 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. All four routes operate below the San Francisco Municipal Transportation Agency (SFMTA) performance standard of 85 percent capacity utilization during the PM peak hour.

[355] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[356] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.

Table 53. 1916 Octavia Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
1 – California	Geary and 33rd via California, Sacramento and Clay	4	5	3.5	857	Sacramento St/ Powell St	79%
19 – Polk	Hunter's Point to Fisherman's Wharf via Civic Center	15	15	15	124	Polk St/ Sutter St	49%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 1-California has increased daytime weekend frequency from 8 to 7 minutes. It will also increase PM peak frequency west of Presidio Avenue from 7 to 6 minutes and east of Presidio Avenue from 3.5 to 3 minutes.
- Route 19-Polk would eliminate service south of 22nd Street.
- Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent. Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The one transit trip generated by the AAU student housing use at 1916 Octavia Street, based on Muni transit capacity utilization and service, is accommodated on existing transit service. AAU shuttles have not substantially conflicted with the operation of transit vehicles on nearby streets.

Shuttle

The AAU student housing use at ES-9 generates approximately 15 shuttle riders during the PM peak hour, with seven riders in the inbound direction and eight riders in the outbound direction. In 2010, this site was served by two shuttle bus routes, M and R, which operated with 60-minute and 30-minute headways, respectively. The total seating capacity at that time for these two routes was 131 seats in the PM peak hour. Routes M and R operated at 44 and 18 percent capacity, respectively during the PM peak hour at the MLP in 2010. During the shuttle peak hour, Routes M and R operated at 81 and 55 percent capacity, respectively at the MLP. MLPs occur at 860 Sutter Street on Route M and at 1916 Octavia Street on Route R. As of spring 2015, one shuttle bus route (Route M) serves this site with 20-minute headways with a capacity of 72 seats during the PM peak hour, a 45 percent reduction of service.

Although the 15 shuttle riders generated at this site during the PM peak hour do not substantially contribute to the shuttle service, Route M serves other locations inbound and outbound prior to this stop. Therefore, a Condition of Approval to assess and monitor shuttle bus ridership and capacity utilization, particularly of Route M is recommended below. If additional shuttle capacity utilization is needed to serve this site, increasing shuttle frequencies or shuttle bus size are examples of how this could be achieved.

As indicated above, this site does not include a designated shuttle stop or white passenger zone. Shuttle buses have been observed to use available curb spaces along the east side of Octavia Street between Sacramento and California streets for passenger loading/unloading activities. Observations during the midday period noted that there were occasional instances of shuttle buses double parking or stopping within the traffic lane on Octavia Street, but no conflicts with other vehicles were noted due to low traffic volumes and the short duration of passenger loading activities.[357] The existing driveway at ES-9, which is occasionally used by maintenance vehicles and service vendors, appears to be too narrow to allow shuttles to pull in and drop off passengers. However, a Condition of Approval is recommended to add an on-street white zone/shuttle stop at this location by converting the existing on-street parking space(s), to a shuttle stop/white zone.

Octavia Street is not a designated bicycle route in the vicinity of the AAU site. There is no Muni transit service provided along Octavia Street. Therefore, the AAU shuttle stop has not directly conflicted with bicycle traffic or Muni transit service.

Pedestrian

The AAU student housing use at ES-9 generates 25 pedestrian trips, including nine walking, one transit and 15 shuttle trips during the PM peak hour. The 15 shuttle walking trips are short in length from the building entrance to the shuttle stop on Octavia Street in front of the building. California Street to the south is designated as a High Injury Corridor under the City's Vision Zero Improvement Plan.[358] Streets near this site have well-defined crosswalk markings and pavement delineations. Sidewalks along Sacramento and Octavia streets are approximately 14 feet wide. As indicated above, the site has a driveway/curb cut on Octavia Street, which is occasionally used by maintenance

[357] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.
[358] *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

vehicles and service vendors as well as by parents dropping off students and their items. The primary and the only pedestrian access to the site is provided through the gateway on Octavia Street.

Pedestrian volumes were observed to be generally low in the vicinity of ES-9 due to the primarily residential land uses in the area. Pedestrians were observed to move freely within the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas.[359] Adjacent pedestrian facilities accommodate the estimated 25 pedestrian trips (including to and from shuttle and transit service).

Bicycle

The AAU student housing land use at ES-9 generates one outbound bicycle trip during the PM peak hour. Octavia Street at this location is not a designated bicycle route. The nearest bicycle routes are Route 25 on Polk Street (a north-south route) and Route 16 on Sutter Street (an east-west route). There are two bicycle racks located in the courtyard at the rear of the house, providing a total of six Class II bicycle parking spaces.[360] Based on observation, the racks are not being fully utilized due to their location near tables and chairs. The site's one PM peak hour bicycle trip has not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand for approximately three spaces, and they are generally accommodated in the existing bike parking spaces.[361] A Condition of Approval to rearrange the existing bicycle parking to provide sufficient clearance for the bicycles is recommended and presented below.

Loading

The AAU student housing use at ES-9 generates limited freight loading demand (less than one daily truck trip). The site does not have any off-street loading spaces. Octavia Street and surrounding blocks including Sacramento Street, California Street, and Gough Street do not have any on-street freight loading (yellow) zones adjacent or near the site due to the predominantly residential uses in the area. Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU–related freight/delivery vehicles or related activities occurred during the observation. General commercial activities in the area were low due to the predominantly residential uses in the area. It is likely that the infrequent commercial deliveries to the site utilize on-street parking spaces, when available, or temporarily block the driveway curb cut to make a delivery. On-street parking spaces along these streets experience moderate to high parking utilization during the midday period. Due to the low daily delivery activity related to the residential use as noted during site visit and low traffic volumes in the area during weekday midday, loading demand is accommodated on-street near the site and has not been substantially altered as a result of the AAU use.

---

[359] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

[360] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[361] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

Garbage collection at the site occurs on the west side of Octavia Street, located next to the entrance for the site. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection occurs three times a week in the early morning hours.

Parking

The AAU student housing use at ES-9 is not expected to generate additional parking demand throughout the day because students are not permitted to park private vehicles at student housing sites by policy and AAU discourages students from bringing private vehicles into San Francisco.[362] The site does not provide any off-street parking spaces.[363] AAU reports that the existing driveway at the site is occasionally used by maintenance vehicles and service vendors as well as by parents dropping off students and their items.

Although the site has not resulted in a regular increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. On-street parking near the site generally consists of time-limited (2-hour), unmetered parking. Table 54 summarizes on-street parking supply and weekday midday occupancy for streets near ES-9. There are a total of 43 on-street parking spaces surrounding the site. During the survey period, parking occupancy was generally full, averaging about 84 percent between 1:00 p.m. and 3:00 p.m. However, the AAU student housing use at ES-9 is not expected to have substantially added to this existing condition.

Table 54. 1916 Octavia Street (ES9) – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Octavia St	Sacramento St	California St	West	8	8	100%
			East	13	13	100%
Sacramento St	Octavia St	Gough St	South	12	10	83%
California St	Octavia St	Gough St	North	10	5	50%
Total				**45**	**33**	**73%**
Note: Parking utilization above 100 percent indicates double parking or other illegal activity.						

Source: CHS Consulting Group, 2015.

There are no publicly accessible off-street parking facilities in the vicinity of ES-9.

Emergency Vehicle Access

San Francisco Fire Department Station #38 (2150 California Street) is the closest station to ES-9, approximately 0.1 miles southwest of the site. From the station, vehicles are able to access the AAU site via California Street and would be able to park along Octavia Street.

---

362 Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed April 20, 2016.

363 The site has a gated driveway which leads to the rear guesthouse/separated housing unit (originally a garage). AAU reports that the driveway is not used for any vehicle parking.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-9 include a potential need for additional shuttle service, a lack of a designated shuttle stop, and inadequate bicycle parking facilities available at the site. To address these constraints, the following conditions of approval are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-9: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for Route M, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-9: TR-2, Shuttle Stop. This site is served by AAU shuttle buses along Octavia Street, but there is no white passenger loading zone. AAU shall coordinate with the SFMTA to create a white zone using existing on-street parking.

Recommended Condition of Approval, ES-9: TR-3, Class I Bicycle Parking. AAU shall rearrange existing bicycle parking to allow for sufficient clearance of parked bicycles (at least two feet). Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Noise

A summary of the methodology used to analyze noise effects is discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

1916 Octavia Street (ES-9) is located on the east side of Octavia Street between Sacramento and California streets, one half block south of Lafayette Park and four blocks west of Van Ness Avenue in the Pacific Heights neighborhood. The 9,750-square-foot parcel is located in a residential district. This AAU residential location does not include a designated shuttle stop, although it is on the Route M shuttle route. No vehicle trips are generated by the uses of ES-9; students use the AAU shuttle system, bicycles, and public transit.[364] According to the San Francisco Transportation Noise Map,[365] the existing traffic noise level near ES-9 from vehicular traffic along Octavia Street was approximately 64 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along these streets currently exceed the “satisfactory” level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-9. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-9 building would have been and continue to be required to comply with the City’s Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as

[364] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[365] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

fixed noise sources at the site; therefore, the change in use at ES-9 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-9.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-9 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-9, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1995, when AAU occupied the building. Area sources were estimated based on a 47-dwelling unit “Mid-Rise Apartments” land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is a heater boiler at ES-9. However, this boiler was installed prior to AAU occupation of ES-9 and was not included in the air quality analysis. There are no on-site generators or boilers at ES-9. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-9. Table 55 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-9, which are all shown to be below the Bay Area Air Quality Management District’s (BAAQMD’s) daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-9 is not one of those sites; therefore, AAU occupation of ES-9 has not resulted in increased health risks for nearby sensitive receptors and has not exposed new sensitive receptors to increased health risks.

Table 55. 1916 Octavia Street (ES-9) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.03	0.03	<0.01	<0.01	0.16	<0.01	<0.01	<0.01
Energy	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	1.03	0.08	<0.01	<0.01	0.16	0.01	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; Nox = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-9 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-9 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery

Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-9: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use are not considered substantial.

Wind and Shadow

The tenant improvements at ES-9 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-9.

Recreation

As shown on Figure 4, p. 3-63, 1916 Octavia Street (ES-9) is located within 0.25 mile of one San Francisco Recreation and Park Department (RPD) park: Lafayette Park. Lafayette Park, located at Gough and Washington streets, features grass lawns, tennis courts, playground, picnic tables, and an off-leash dog-play area. Other publicly owned parks are within a 0.5-mile distance of ES-9, including Japantown Peace Plaza.

As described in Population and Housing on p. 4-224, the capacity of ES-9 is 47 beds. The change in use from a residential hotel to student housing (group housing for a postsecondary educational institutional) at ES-9 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Lafayette Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-9 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous residential land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[366] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-9. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[367] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-9 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[368] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[369] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

---

366 San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

367 SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

368 San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

369 CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

Public Services

Police

ES-9 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent data available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[370] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

1916 Octavia Street has a capacity of 47 beds (22 group-housing rooms). The change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) within an RH-2 Zoning District would not represent a substantial change in the population of the area, as the population of the previous use as a residential hotel would be proximate to that of student housing. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-9.

Fire and Emergency Services

ES-9 is located within 3,500 feet of Fire Station No. 38 (2150 California Street) and Fire Station No. 3 (1067 Post Street). Fire Station No. 3 consists of a single fire engine and a truck. Fire Station No. 38 consists of a single fire engine.[371] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 38 responded to 510 non-emergency calls with an average response time of 6:47 minutes, with 90 percent of non-emergency calls responded to in under 12:31 minutes. Fire Station No. 38 responded to 1,662 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:14 minutes. In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:21 minutes. [372]

---

[370] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[371] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[372] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-9 meet the Citywide emergency transport goals.

As described above on p. 4-224, the change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) does not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand is negligible. AAU has upgraded the fire sprinkler system and installed a new fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-9.

Libraries

The public libraries nearest to ES-9 are the Golden Gate Valley Branch and Western Addition Branch Libraries. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-224, the change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) has not represented a substantial change in the population of the area. Any change in population has been minimal compared to the service population for the Golden Gate Valley Branch and Marina Branch Libraries. In addition, public library facilities would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-9.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as a residential hotel had no effect on nearby schools. Similarly, the change in use to student housing (group housing for a postsecondary educational institution) would not affect nearby schools, as current AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[373] No change in the school-aged population has occurred. For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-9.

Biological Resources

ES-9 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. While, ES-9 is located 300 feet south of an Urban Bird Refuge (Lafayette Park) there are no known candidate,

[373] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

sensitive, or special-status species located at or near ES-9. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-9.

Geology and Soils

ES-9 is underlain by undifferentiated sandstone and shale, part of the Franciscan bedrock. The depth to groundwater is unknown, and groundwater likely flows toward the south, corresponding with topography.[374] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Because the site is located on bedrock, ground-shaking intensity would be moderate during a 7.2- and 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[375, 376] ES-9 is not located within a liquefaction zone.[377] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-9 is not an unreinforced masonry building and is exempt from the Soft Story Ordinance Program because the building is not of Type V (wood-frame) construction (San Francisco Building Code Chapter 34B).[378] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations completed after the change in use to student housing (group housing for a postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-9 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of a fence, lighting, canopy, and an awning). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control

---

[374] Geologica, Inc., Phase I Environmental Site Assessment for 1916 Octavia Street, March 2003.

[375] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[376] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[377] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[378] San Francisco Department of Building Inspection, Wood-Frame Seismic Retrofit Program – Screening Form, 1916 Octavia Street, November 6, 2014.

Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-9 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[379] ES-9 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-9.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-9 identified the removal of an underground storage tank (UST) in 1995, during which 10 cubic yards of contaminated soil were excavated at the site. Based on the long history of development in the area and the use of heating oil USTs, soil and groundwater contamination may be present.[380] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1898, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the basement, although there is no evidence of damage or leaks. No peeling paint was detected.[381] Prior to building alterations, materials were tested for ACMs. One sample in the drywall of the common restrooms was determined to be asbestos-containing.[382] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-9 is a student housing building with a manager's office, laundry room, study room, and a television room. Hazardous materials that are used, stored, and disposed of at ES-9 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents.

---

[379] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

[380] Geologica, Inc., Phase I Environmental Site Assessment for 1916 Octavia Street, March 2003.

[381] Geologica, Inc., Phase I Environmental Site Assessment for 1916 Octavia Street, March 2003.

[382] RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 460 Townsend Street, June 4, 2010.

These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-9.

Tenant improvements at ES-9 associated with the conversion of residential hotel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-238 – 4-239. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[383] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-9, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-9. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-9 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-9 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-9 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[384] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-9 has had no substantial effects on agriculture or forest resources.

---

[383] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1916 Octavia Street, March 4, 2016.

[384] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.9. 950 Van Ness Avenue (ES-10)

Property Information

The 950 Van Ness Avenue existing site (ES-10), also known as 963 O'Farrell, consists of two lots and two connected buildings (50,700 square feet combined), used as a single property (Photographs 51–54).[385] The building at 950 Van Ness Avenue is two stories high plus a basement and was built in 1919. 963 O'Farrell Street is one story tall and was built in 1924. ES-10 is located on Van Ness Avenue between O'Farrell and Olive streets, in the Downtown/Civic Center neighborhood. Figure 8, ES-10: 950 Van Ness Ave (Vehicle Storage) – Existing Conditions, in Appendix TDM, shows the site and adjacent streets. The buildings do not have a documented capacity, but Academy of Art University (AAU) reports that it is a classic car museum and is rarely used. Nine full- and part-time staff members occupy the building. The site is Lots 017 and 021 in Assessor's Block 0718.

The buildings were formerly occupied by an automobile dealership. AAU occupied the property in 2009 and established a classic vehicle museum, which is open to the public by appointment only and classic car storage. In addition to the ground-floor classic vehicle museum, several offices are located on the second floor. Classic cars not on display are stored in the basement and on the second floor of 950 Van Ness Avenue. Limited automobile maintenance occurs in the 963 O'Farrell Street building (e.g., oil changes, tire inflation, etc.). Because of the limited number of faculty and staff who occupy the building, ES-10 is not served by the AAU shuttle system.

The site is zoned RC-4 (Residential – Commercial – Combined, High-Density) and is located in the Van Ness Automotive Special Use District and the Van Ness Special Use District. The focus of the Van Ness Special Use District is to implement the Van Ness Avenue Area Plan. The RC-4 Zoning District allows high-density residential uses, senior housing, group housing including single-room occupancy and student housing, retail uses on the first and second floors only, institutional uses, and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. ES-10 is located within the Van Ness Special Sign District, which prohibits roof signs, and limits the size, number, and location of signs. The height and bulk district on either side of Van Ness Avenue between Golden Gate Avenue and Geary Boulevard is 130-V.

Tenant Improvements and Renovations

AAU made no exterior changes to the building, except to install two ducts on the roof. AAU refurbished the building in 2009 (painting and interior offices) and added a new ventilation system for the automobile storage areas.[386] Two painted exterior wall signs were removed by AAU in 2010. AAU installed a new fire sprinkler system, fire alarm, and a new intelligent fire alarm control panel in 2011 and 2012. AAU installed an approximately 10-foot-long underground pipe for the fire sprinkler system.[387]

---

[385] *2011 IMP*, p. 87.
[386] Geologica, Inc., Phase I Environmental Site Assessment for 950 Van Ness Avenue, July 2010, p. 10.
[387] Building Permits obtained for the improvements and renovations at ES-10 are: BPA #201003228698 (remove painted wall signs), #201111169062 (fire sprinklers), #201202285039 (fire alarms), #201203015162 (underground pipe), #201202285039 (control unit), and #2009042 (ducts on roof).

Photograph 51. 950 Van Ness Avenue (ES-10).

Photograph 52. Dan Lee Automobile Showroom Building at 1000 Van Ness Avenue, to the north of ES-10.

Photograph 53. Van Ness Avenue at Ellis Street, facing northwest.

Photograph 54. Van Ness Avenue at Ellis Street, facing northeast.

Required Project Approvals

The 950 Van Ness Avenue existing site (ES-10) would require a CU authorization under Planning Code Sections 209.3 and 303, and a building permit under Planning Code Section 171 to change the use from retail (automobile sales) to an institution (museum) within a RC-4 Zoning District.

Plans and Policies and Land Use

ES-10 is located in the Downtown/Civic Center neighborhood of San Francisco. In the immediate vicinity of ES-10 is a mixture of residential and commercial uses. Commercial uses include two automobile dealerships, television station offices, a movie theater, and several smaller retail operations. Building heights are relatively low and range from one to four stories. The ES-10 buildings were built in 1919 and 1924, are two stories, and were historically used as a car dealership.

ES-10 is situated on Van Ness Avenue, a major north-south thoroughfare that serves as U.S. 101 through San Francisco to Lombard Street and the Golden Gate Bridge. In the vicinity of ES-10, Van Ness Avenue has three lanes in each direction with a planted median. Metered parallel parking is available on both sides of the street. The Van Ness Bus Rapid Transit Project is scheduled to begin construction in 2016 and will include 2 miles of dedicated transit-only lanes near ES-10 that separate transit from traffic, enhanced boarding platforms, and the installation of new traffic signals. Bus stops are currently located on both sides of Van Ness Avenue, north of O’Farrell Street.

By the 1920s, automobile-oriented businesses emerged as the most common use between Civic Center and Jackson Street along Van Ness Avenue. Since the 1970s, automobile-oriented businesses have declined as some automobile showrooms relocated to other areas within and outside of the City and County of San Francisco (the City). Former automobile showrooms have been converted to restaurants and offices, and some have been demolished for new mixed-use residential developments.

The zoning at and near ES-10 is RC-4 (Residential – Commercial – Combined, High-Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses. The height and bulk district on either side of Van Ness Avenue between Golden Gate Avenue and Geary Boulevard is 130-V. ES-10 is also located within the Van Ness Corridor Planning Area. ES-10 is located in the Van Ness Special Use District and the Van Ness Automotive Special Use District. The focus of the Van Ness Special Use District is to implement the Van Ness Avenue Area Plan, which attempts to revitalize the area by encouraging new retail and housing to facilitate the transformation of Van Ness Avenue into an attractive mixed-use boulevard. However, the Plan also guides development in a manner that is sensitive to architectural resources in the area and avoiding demolition or inappropriate alteration of historically or architecturally significant buildings, likely including ES-10.[388] The use of ES-10 as a postsecondary educational institution is consistent with the Van Ness Area Plan. The goal of the Van Ness Automotive Special Use District is to provide a major automotive area with a Citywide and regional market. In addition, ES-10 is located within the Van Ness Special Sign District, which prohibits roof signs, and limits the size, number, and location of signs.

[388] Planning Code Section 243.

As noted above, the use of ES-10 has been changed by AAU from retail (automobile sales) to an institutional (museum) use, and is currently being used as a classic car museum and storage. The change in use of the existing structure involved the limited exterior alterations described above under Tenant Improvements and Renovations. The change in use would conflict with the goals of the Van Ness Automotive Special Use District, which encourages automotive retailing uses. If ES-10 continues to be used as a classic car museum, the use would be similar in character to a car dealership. The change in use would not physically divide an established community or alter the physical character of the neighborhood.

The use of ES-10 as an institution (museum) potentially conflicts with the Van Ness Special Use District, which encourages the development and maintenance of high-density housing along Van Ness Avenue. An institutional use is subject to approval by the Planning Commission as a CU within an RC-4 Zoning District. ES-10 would also require a building permit pursuant to Planning Code Section 171. Therefore the ES-10 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-10 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The change in use at ES-10 from retail (automobile sales) to an institutional (museum) use would minimally have changed the daytime population because the building with an automobile sales use likely had a comparable occupancy. The building at ES-10 is likely less populated by the museum use compared to the automobile dealership because it is solely used as a classic car museum that is available to the public by appointment only. Only nine full- and part-time staff members occupy the building, including automotive mechanics, security personnel, and detailers. Only occasional trips by faculty members, staff, or students occur at the site. In contrast, the automobile sales use would have had a steady daily population of sales staff and customers. Occupation by AAU may have resulted in displacement of employees; however, retail space was likely found elsewhere. Conservatively presuming that ES-10 was unoccupied prior to AAU use, employment and student growth resulting in new residents of San Francisco would be minimal, as only a limited amount of staff members occupy the building.[389] Therefore, no substantial effect on population has occurred from the change in use at ES-10.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-10 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

---

[389] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

The change in use at ES-10 from retail (automobile sales) to an institutional (museum) use would not induce substantial housing demand, as the population of the site is limited to a classic vehicle museum that has only a few full-time staff members. No student or faculty populations occupy the site. Therefore, increased housing demand from the change in use would be negligible because the building is not inducing substantial employment or population growth. No substantial effect on housing demand from the change in use at ES-10 has occurred. The change of use at ES-10 did not result in the displacement of housing because this site was previously used as retail.

Aesthetics

ES-10 is located along the Van Ness Corridor within the Civic Center neighborhood. The ES-10 buildings were built in 1919 (950 Van Ness Avenue) and 1924 (963 O'Farrell Street), and were historically used as an automobile dealership. 950 Van Ness Avenue is two-stories-over-basement and 963 O'Farrell Street is one story tall. The buildings in the vicinity are visually defined by a variety of land uses and associated building types, such as commercial, retail, restaurant, hotel, and residential uses. A variety of architectural styles including differing building materials and patterns, window patterns, and rooflines are present. ES-10 is bordered by Van Ness Avenue to the west, O'Farrell Street to the north, Olive Street to the south, and a residential building to the east.

Van Ness Avenue (U.S. 101) is a major arterial roadway linking Lombard Street and the Golden Gate Bridge to the north and U.S. 101 to the south. In addition, other nearby streets including Franklin Street, Gough Street, Geary Street, and O'Farrell Street are all heavily traveled one-way thoroughfares that link neighborhoods in the City. As such, vehicular traffic is a major contributor to the visual environment near ES-10.

Much of the streetscape is dominated by moderate and large-scale mixed-use development with retail and restaurant uses on the ground floor and residential and office uses above. Single- and multi-story adjoining buildings are interspersed forming a consistent, urban façade with no setback from the sidewalk. Directly across Van Ness Avenue are two similarly designed two-story buildings with large showroom windows that remain car dealerships.

ES-10 is located on and viewable from Van Ness Avenue, which is designated as a street that defines City form and is important for significant building viewing.[390] The density of development, abundance of active vehicular thoroughfares, and dynamic land uses generate a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-10 has caused minimal visual changes to the building and neighborhood. No exterior alterations are indicative of AAU use. Due to the large showroom windows that front Van Ness Avenue, the showroom floor is highly visible to passing vehicular and pedestrian traffic on Van Ness Avenue and O'Farrell Street. However, the historic cars that are visible in the AAU museum are comparable to nearby car dealerships and former uses in the Van Ness Automotive Special Use District. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-10.

[390] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

Cultural and Paleontological Resources

Historic Architectural Resources

950 Van Ness Avenue was evaluated as part of the Van Ness Auto Row Support Structures Survey prepared by William Kostura for the San Francisco Department of City Planning and adopted in 2010. It was found not to be a historic architectural resource at that time and thus no historical architectural evaluation was performed for ES-10.

Archaeology and Paleontology

Building alterations at ES-10 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-10 is located on the east side of Van Ness Avenue, south of O'Farrell Street and north of Olive Street in the Civic Center neighborhood. The 12,018-square-foot parcel is located in a high-density commercial and residential district. AAU is currently utilizing approximately 50,700 gross square feet of the building for a classic vehicle museum and storage. The building is not open to the public, but there is an annual event (a holiday party) held at this location once a year for a professional association.

The primary and the only pedestrian access to the site is from Van Ness Avenue through the glass door. No vehicle or bicycle parking is located on-site. The site includes five curb cuts with two on O'Farrell Street at off-street (roll-up door) loading areas, two on Van Ness Avenue related to the prior automobile dealership use (in front of current entry doorways), and one on Olive Street at an off-street (roll-up door) loading area. As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, on an average weekday, this AAU site generates nine trips during the PM peak hour. No shuttle service is provided to the site, except for on-demand shuttle service during the San Francisco Auto Show. The site is staffed by seven full-time and two part-time staff (mechanics and auto detailers), and AAU faculty and staff occasionally visit the site.

Traffic

Land uses along this section of Van Ness Avenue are mostly retail, offices, and residential. There are three Muni bus stops at the intersection of Van Ness Avenue and O'Farrell Street. O'Farrell Street forms a one-way couplet with Geary Boulevard, and O'Farrell Street is the one-way eastbound road accessing downtown San Francisco. There are corner bulb-outs on the southeast and northwest corners of the Van Ness Avenue/O'Farrell Street intersection. Both Van Ness Avenue and O'Farrell Street have high traffic volumes during the AM and PM peak hours. Olive Street, which borders the south side of the AAU site, is an alleyway and carries light traffic volumes. The San Francisco Municipal Transportation Agency (SFMTA) operates two Muni routes (47-Van Ness and the 49-Van Ness/Mission) in the site vicinity along Van Ness Avenue and two routes (38-Geary and 38R-Geary Rapid) along O'Farrell Street. Shuttle Routes D, Sutter Express and Hayes Express operate along Van Ness Avenue near ES-10, but they do not stop at this site.

The following includes a discussion of O'Farrell Street, Olive Street, and Van Ness Avenue which are located to the north, south, and west of the AAU site, respectively. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[391, 392] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[393]

Van Ness Avenue is a north-south commercial throughway that runs between North Point Street and Market Street, where it becomes South Van Ness Avenue. Van Ness Avenue, with its connection to Lombard Street, is also designated as U.S. 101 through the City. Van Ness Avenue has three lanes in each direction and a mix of metered and unmetered (2-hour time restricted) parking in the vicinity of the AAU site. The *San Francisco General Plan* classifies Van Ness Avenue as a Major Arterial in the CMP Network; it is also part of the MTS Network, a Transit Preferential Street (Transit Important Street), part of the Citywide Pedestrian Network, and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Van Ness Avenue is designated as a High Injury Corridor in the City's Vision Zero network.

O'Farrell Street is an east-west street that runs between Market and Gough streets. In the vicinity of ES-10, O'Farrell Street is a Downtown Residential street with two eastbound travel lanes and one transit-only lane. On-street metered parking is available on the south side of the street between Polk Street and Van Ness Avenue and on both sides of the street between Van Ness Avenue and Franklin Street. The *San Francisco General Plan* identifies O'Farrell Street as a Major Arterial in the CMP Network, a Transit Preferential Street (Transit Important Street), and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). As for the Van Ness Avenue corridor, O'Farrell Street is also on the City's Vision Zero High Injury Network.

Olive Street is an east-west alley that runs one-way eastbound between Franklin and Larkin streets. Olive Street has one eastbound travel lane and metered parking on the south side of the street. Motorists cannot cross Van Ness Avenue on Olive Street, as the median in Van Ness Avenue requires a right turn from Olive Street on that segment of the three-block-long street.

The vehicle storage facility at 950 Van Ness Avenue adds approximately three vehicle trips to adjacent streets during the PM peak hour. This level of contribution has not substantially altered existing operating conditions of streets or intersections in the area.

Transit

The AAU classic vehicle museum and storage use at ES-10 generates approximately four transit trips during the PM peak hour. ES-10 is served by Muni bus lines 19-Polk, 38-Geary, 38R-Geary Rapid, 47-Van Ness, and 49-Van Ness/Mission. The nearest bus stops to the AAU site are located at the Van Ness Avenue/ O'Farrell Street intersection, including on the northbound far side, southbound nearside, and eastside nearside of the intersection which serve the 38-Geary, 38R-Geary Rapid, 47-Van Ness, and 49-Van Ness/Mission lines and at the O'Farrell Street/Polk Street intersection (southbound nearside stop), which serves the 19-Polk line. They include shelters and signage with

[391] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[392] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[393] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23).

Table 56 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. All five routes except for 38-Geary operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour. 38-Geary operates at 90 percent capacity utilization and exceeds Muni's 85 percent capacity utilization standard.

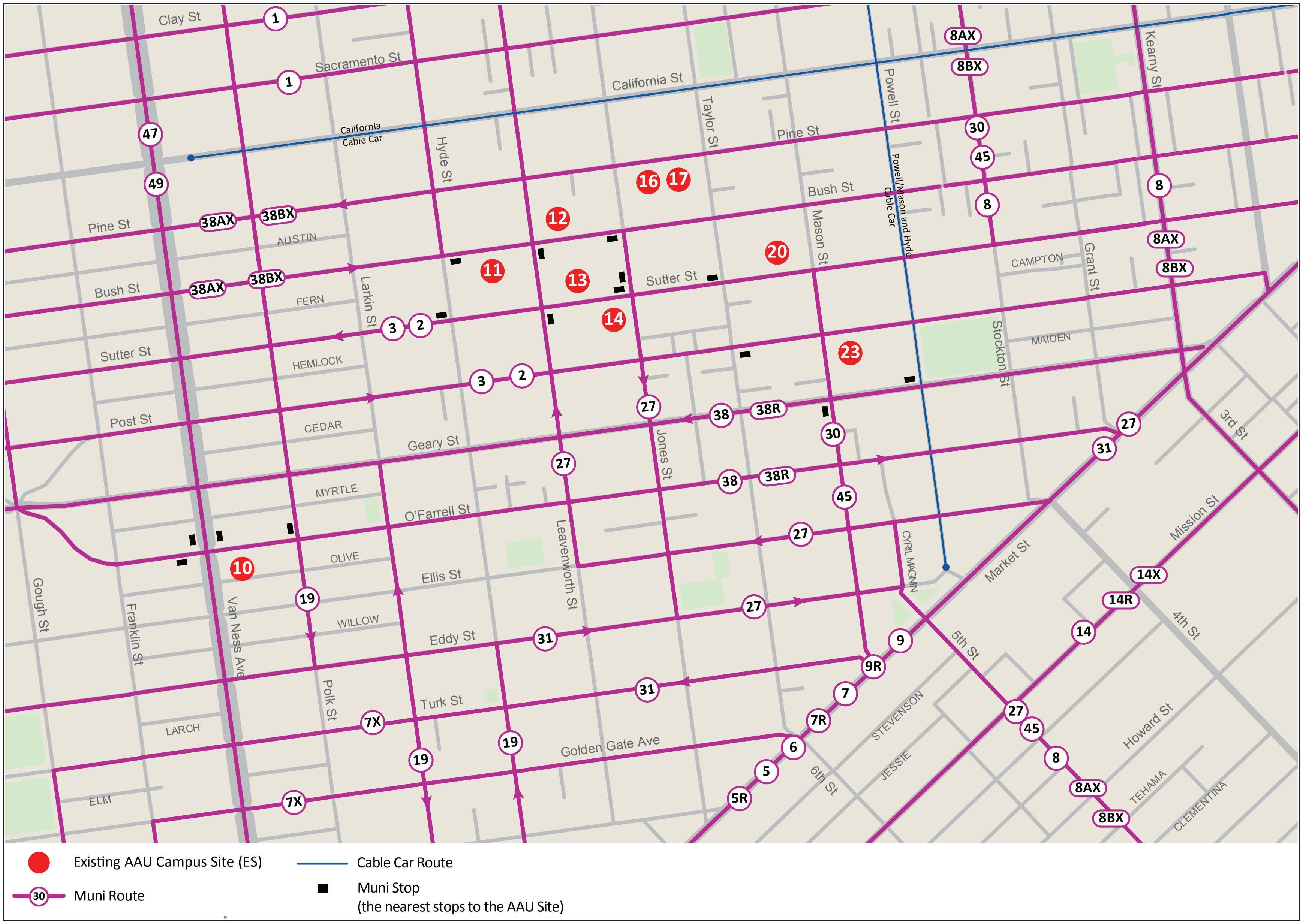
Table 56. 950 Van Ness Avenue – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
19 – Polk	Beach and Polk to Navy Gate via Polk, Cesar Chavez, Eighth, and Evans	15	15	15	168	8th St/ Mission	66%
38 – Geary	VA Hospital to Transbay Terminal via Geary and Market	8	8	8	640	Geary St/ Taylor St	68%
38R – Geary Rapid	Point Lobos to Transbay Terminal via Geary and Market	4	6	4	927	Geary St/ Leavenworth St	90%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
49 – Van Ness/ Mission	City College to North Point via Ocean, Mission, and Van Ness	8	9	8	338	Van Ness Ave/ McAllister St	47%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 19-Polk would eliminate service south of 22nd Street.
- Route 38-Geary would increase frequency east of 33rd Avenue during AM and PM peak to 6 minutes.
- Van Ness Corridor Transit Improvement Project will implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which is expected to reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent. Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.



Source: CHS Consulting Group (2016)

AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 8: MUNI TRANSIT NETWORK FOR ES-10 THROUGH 14, ES-16, ES-17, ES-20, AND ES-23

The AAU classic vehicle museum and storage use at ES-10 generates approximately four transit trips during the PM peak hour, and the increased transit demand is not a substantial contribution to the existing transit service. No existing shuttle stop is provided at this site; thus, AAU shuttle service has not substantially conflicted with the operation of transit vehicles.

Shuttle

The institutional use at ES-10 does not generate any shuttle demand. No shuttle service is provided to this site, except for a limited number of on-demand shuttle trips during the San Francisco Auto Show to drop off drivers. No shuttle service is proposed at this time.

Pedestrian

The AAU institutional use at ES-10 generate approximately five pedestrian trips including four transit trips and one walk trip. Intersections near ES-10 have well-defined crosswalk markings, pavement delineations, and traffic lights, with the intersection of Van Ness Avenue and O'Farrell Street having pedestrian walk signal heads. Sidewalks along O'Farrell Street, Van Ness Avenue, and Olive Street are approximately 12, 14, and 6 feet wide, respectively. There are curb cuts along the site, with two driveways located along the east side of Van Ness Avenue, one driveway on the north side of Olive Street, and two driveways on the south side of O'Farrell Street. The curb cuts on O'Farrell Street, Olive Street and Van Ness Avenue are in use for loading, unloading, and vehicle circulation. The primary and only pedestrian access to the site is from Van Ness Avenue through the glass doorway.

Pedestrian volumes were observed to be generally low to moderate in the vicinity of ES-10 and pedestrians were observed to move freely within the sidewalk and crosswalk areas. The land uses in the area consist of a mix of residential and commercial uses. There were no indications of overcrowding within the sidewalk areas or at the Muni bus stops located at the Van Ness Avenue/O'Farrell Street intersection. The three loading areas were closed during the observation period, and no instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations were observed.[394] Adjacent pedestrian facilities accommodate the estimated five pedestrian trips (including to and from transit service).

Bicycle

The institutional use at ES-10 does not generate any bicycle trips throughout the day. Van Ness Avenue is not a bicycle route. However, Route 25 on Polk Street is located within one block of the site. There is no bicycle parking provided on site; the nearest Class II public bicycle racks are located on the sidewalk on the east side of Van Ness Avenue north of O'Farrell Street for the AMC Theater. Given the classic car museum and storage use at the site, no effect on bicycle facilities has occurred from the AAU change in use. No bicycle parking is required under the Planning Code for this site.

Loading

The institutional use at ES-10 generates limited freight loading activities (less than one daily truck trip), because it is used as a classic car museum and storage. There are two on-street freight loading

[394] Field observation was made by CHS on Tuesday July 14, 2015 between 1:00 p.m. and 3:00 p.m.

(yellow) spaces adjacent to the site, including one 40-foot-long metered space on the north side of Olive Street between Van Ness Avenue and Polk Street. There are two driveways on O’Farrell Street and one driveway on Olive Street, which are used for vehicle access to the building and for loading/unloading on occasion.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU-related freight/delivery vehicles or related activities occurred during the observation. General commercial activity in the area was moderate to high along Van Ness Avenue and O’Farrell Street serving the adjacent retail and commercial uses. On-street parking spaces along these streets experience a moderate to high parking utilization (approximately 67 percent) during the midday period. Commercial vehicles making deliveries to this site utilize one of the loading areas or any available on-street parking spaces in the vicinity. Due to reported low daily delivery activity related to the car storage use, loading demand is accommodated at the loading area of the site. Given the existing transit-only lane on O’Farrell Street and planned Van Ness Bus Rapid Transit (BRT) on Van Ness Avenue, recommended Condition of Approval is suggested to remove unnecessary cub cuts along Van Ness Avenue and O’Farrell Street, as determined by the Planning Department.

Garbage collection at this site occurs on the south side of O’Farrell Street, next to the service entrance for the site. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection along O’Farrell Street occurs twice a week in the late night hours.

Parking

The classic vehicle museum at ES-10 is expected to generate a parking demand for approximately three spaces. The site does not provide any off-street parking spaces. An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking near the site generally consists of time-limited, metered parking. Table 57 summarizes on-street parking supply and weekday midday occupancy for streets near ES-10. There are a total of 30 on-street parking spaces surrounding the site. During the survey period, parking occupancy was moderate to high (along Van Ness Avenue), averaging about 67 percent between 1:00 p.m. and 3:00 p.m.

Table 57. 950 Van Ness Avenue – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Olive St	Van Ness Ave	Polk St	South	16	8	50%
Van Ness Ave	Olive St	O'Farrell St	East	3	3	100%
O'Farrell St	Van Ness Ave	Polk St	South	11	9	82%
Total				**30**	**20**	**67%**

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

Off-street parking inventory is presented for the study area generally defined as a two-block radius from ES-10. Parking data on off-street parking facilities was obtained from SFMTA's *SFpark* project. Table 58 shows there are two public off-street parking facilities with a total of 500 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 58. 950 Van Ness Avenue – Off-Street Parking Supply

Address	Type	Capacity
1000 Van Ness Ave	Garage	480
999 Polk St	Lot	20
Total		**500**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Encouraging AAU to reduce staff and faculty vehicle trips and parking demand as a recommended Condition of Approval is suggested and further discussed below. In addition, as indicated under the Loading discussion, a recommended Condition of Approval is suggested to remove unnecessary curb cuts along Van Ness Avenue and along O'Farrell Street potentially expanding the on-street parking and/or commercial loading spaces along the site.

Emergency Vehicle Access

San Francisco Fire Department Station #3 (1067 Post Street) is the closest station to ES-10, approximately 0.1 miles north of the site. From the station, vehicles are able to access the AAU site via Van Ness Avenue and O'Farrell Street and would be able to park along O'Farrell Street.

Existing Constraints

Based on the above discussion, a constraint on the AAU use of ES-10 includes multiple curb cuts on three sides of the site. To address this constraint, the following Condition of Approval is recommended for consideration by decision makers:

Recommended Condition of Approval, ES-10: TR-1, Curb Cut Removal. AAU shall remove unnecessary curb cuts along O'Farrell Street and Van Ness Avenue, in coordination with SFMTA, DPW, and the Planning Department. Curb cut removal also improves pedestrian conditions along O'Farrell Street and Van Ness Avenue, and potentially increases the amount of on-street parking and/or commercial parking adjacent to the project site.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The classic vehicle museum at 950 Van Ness Avenue (ES-10) is located on the east side of Van Ness Avenue, south of O'Farrell Street and north of Olive Street in the Civic Center neighborhood. The 12,018-square-foot parcel is located in a high-density commercial and residential district. AAU is currently using approximately 50,700 gross square feet of the building for classic vehicle storage for the museum located at Van Ness Avenue and Washington Street and for museum use by appointment only. The classic car storage at ES-10 does not generate any shuttle demand, and no shuttle service is provided to this site.

AAU did not install or modify any existing rooftop mechanical equipment at ES-10. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-10 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-10 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-10.

According to the San Francisco Transportation Noise Map,[395] the existing traffic noise level near ES-10 from vehicular traffic along Van Ness Avenue and O'Farrell Street was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, commercial land uses are not considered to be sensitive land uses under the *San Francisco General Plan*. Therefore, operations at ES-10 are not adversely affected by the existing noisy environment. The AAU use of the building for classic vehicle storage does not substantially change the already noisy environment.

<u>Air Quality</u>

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classic vehicle museum) at ES-10, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been occupied by AAU in 2009. Area sources were estimated based on a 50,700-square-foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 2005 was conservatively assumed for ES-10. There are no on-site generators or boilers at ES-10. Table 59 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-10, which are all shown to be below Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

[395] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Table 59. 950 Van Ness Avenue (ES-10) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.41	<0.01	<0.01	<0.01	0.26	<0.01	<0.01	<0.01
Energy	0.04	0.37	0.03	0.03	<0.01	0.07	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	1.45	0.37	0.03	0.03	0.26	0.07	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.
ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-10 is not one of those sites; therefore, AAU occupation of ES-10 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-10 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A). Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-10 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

With the implementation of requirements listed in the GHG Compliance Checklist, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-10 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-10.

Recreation

As shown on Figure 4, p. 3-63, 950 Van Ness Avenue (ES-10) is located within 0.25 mile of two San Francisco Recreation and Park (RPD) facilities: Jefferson Square and Sgt. John Macaulay Park. Jefferson Square, located at Eddy and Gough streets, features grassy lawns, an off-leash dog play area, and a small plaza.[396] Sgt. John Macaulay Park, located at Larkin and O'Farrell streets, features children's climbing structures, slides, tire swings, and seating.[397] Other publicly owned parks are within 0.5-mile distance of ES-10, including Tenderloin Recreation Center, Father Alfred E. Boeddeker Park, and Japantown Peace Plaza.

As described in Population and Housing on p. 4-250, the change in use from retail (automobile sales) to an institutional (museum) use at ES-10 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Jefferson Square and Sgt. John Macaulay Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

---

[396] San Francisco Recreation and Parks, Jefferson Square. Available online at: http://sfrecpark.org/destination/jefferson-square/. Accessed on January 15, 2016.

[397] San Francisco Recreation and Parks, Sgt John Macaulay Park. Available online at: http://sfrecpark.org/destination/sgt-john-macaulay-park/. Accessed on January 15, 2016.

Utilities and Service Systems

Water Supply

ES-10 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous retail (automobile sales) land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[398] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-10. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[399] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-10 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[400] In addition,

---

[398] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[399] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[400] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[401] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-10 is located within the Northern District of the San Francisco Police Department (SFPD). The Northern District Police Station is located at 1125 Fillmore Street. The district covers approximately 5.3 square miles with a population of nearly 100,000. In 2013 (the most recent data available), there were 871 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 7,155 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Northern District.[402] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The change in use from retail (automobile sales) to an institutional (museum) use would not represent a substantial change in the daytime population of the area. The daytime population at the building is likely lower because the building is currently only used as a classic vehicle museum with a limited daily population, and the number of visitors would not be expected to exceed the number of employees in the former dealership. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-10.

Fire and Emergency Services

ES-10 is located within 3,500 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 36 (109 Oak Street). Fire Station No. 36 consists of a single fire engine.[403] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:21 minutes. In 2011, Fire Station No. 36 responded to 1,624 non-emergency calls with an average response time of 8:24 minutes, with 90

---

[401] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[402] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[403] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

percent of non-emergency calls responded to in under 14:24 minutes. Fire Station No. 36 responded to 4,810 emergency calls with an average response time of 3:16 minutes, with 90 percent of emergency calls responded to in under 4:33 minutes.[404]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-10 meet the Citywide emergency transport goals.

As described above on p. 4-250, the change in use from retail (automobile sales) to an institutional (museum) use would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire sprinkler system, fire alarm, and a new intelligent fire alarm panel, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect from the change in use on fire or emergency medical services has occurred.

Libraries

The public library nearest ES-10 is the Main Library. The Main Library is the resource center for the entire SFPL system and the libraries of Northern California. The Main Library is 376,000 square feet, has a seating capacity of 2,043, and had 1,716,071 patrons during 2013–2014.[405] Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-250, the change in use from retail (automobile sales) to an institutional (museum) use would not represent a substantial change in the daytime population of the area. Any change in population would be minimal compared to the service population for the Main Library. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-10.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as retail (automobile sales) had no effect on nearby schools. Similarly, the change in use under AAU as an institutional use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined

[404] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.
[405] San Francisco Public Library, About the Main Library. Available at http://sfpl.org/index.php?pg=2000063301. Accessed on October 23, 2015.

discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has occurred from the change in use at ES-10.

Biological Resources

ES-10 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-10. ES-10 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-10.

Geology and Soils

Soils near ES-10 are classified as urban land.[406] As with most properties east of Van Ness Avenue, the site is underlain by a variable thickness of artificial fill that likely includes debris from the 1906 Earthquake and Fire. The artificial fill overlays well-sorted, fine- to medium-grained dune sands, which are in turn underlain by bedrock. Depth to groundwater ranges from less than 10 to 55 feet below ground surface. Since the basement was observed to have a sump pump during the Phase I Environmental Site Assessment (ESA), average depth to groundwater is likely within 10 to 20 feet. The direction of groundwater flow is southeast.[407] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-10 would be very strong during a 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[408,409] ES-10 is not located within a liquefaction zone.[410] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-10 is a stucco-clad, reinforced concrete building. ES-10 is not an unreinforced masonry building and does not have a soft story.[411, 412] As a result, it does not have an increased risk of

[406] Geologica, Inc., Phase I Environmental Site Assessment for 950 Van Ness Avenue, July 2010.
[407] Geologica, Inc., Phase I Environmental Site Assessment for 950 Van Ness Avenue, July 2010.
[408] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[409] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[410] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[411] City and County of San Francisco, UMB – All Report, December 1, 2014.
[412] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations completed after the change in use to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-10 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., two roof ducts). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-10 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[413] ES-10 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-10.

Hazards and Hazardous Materials

The Phase I ESA prepared for ES-10 identified the presence of three historic underground storage tanks at the site due to its long history as an automobile dealership and repair facility. Evidence suggests that the tanks were removed at some unknown point in time and no soil contamination is present.[414] Similarly, significant historic use of hazardous materials such as petroleum hydrocarbon (fuels, oils, etc.), solvents, and paints is likely over the years.[415] Nevertheless, the building alterations undertaken at the site by AAU involved routine, minor digging for the installation of a 10-foot-long pipe underneath the sidewalk. No major earth movement or ground-disturbing activities occurred and it is unlikely that buried hazardous materials were exposed; therefore, effects would have been negligible.

The date of the building's construction, 1919, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. No suspect ACMs were observed during the site visit for the ESA. Fluorescent lights,

---

[413] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[414] Geologica, Inc., Limited Geophysical Survey, 950 Van Ness Avenue, November 10, 2010.
[415] Geologica, Inc., Phase I Environmental Site Assessment for 950 Van Ness Avenue, July 2010.

which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[416] Prior to building alterations, materials were tested for ACM and LBP. ACM and LBP were discovered throughout the building.[417] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-10 as a classic car museum with accompanying office space. Hazardous materials that are used, stored, and disposed of at ES-10 include gasoline, oil, coolant, cleaners, lubricants, adhesives, and paints associated with the classic car museum use.[418] These products are stored in hazardous materials drums, bottles, cans, and containers. After use some of the waste is non-hazardous and able to be thrown in the regular trash, whereas others are deposited into hazardous waste drums and disposed of by Brittell Environmental.[419] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22.[420] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan. Article 22 authorizes the SFDPH Hazardous Materials Unified Program Agency (HMUPA) to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-1 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-10 to ensure compliance with applicable regulations. As the previous use of the building was an automobile dealership, hazardous materials use has likely stayed approximately the same after the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-10.

Tenant improvements at ES-10 associated with the conversion of automobile dealership space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-260 – 4-261. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance,

[416] Geologica, Inc., Phase I Environmental Site Assessment for 950 Van Ness Avenue, July 2010.
[417] RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 950 Van Ness Avenue, January 4, 2012.
[418] Academy of Art, Hazardous Materials Inventory List for 950 Van Ness Avenue, August 6, 2015.
[419] Academy of Art, Hazardous Materials Inventory List for 950 Van Ness Avenue, August 6, 2015.
[420] Permit number: EPA# CAR000203786.

which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[421] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-10, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service to ES-10. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-10 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-10 has not has a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-10 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[422] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-10 has had no substantial effects on agriculture or forest resources.

[421] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 950 Van Ness Avenue, March 4, 2016.

[422] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.10. 1153 Bush Street (ES-11)

Property Information

The 1153 Bush Street existing site (ES-11), also known as the Academy of Art University (AAU) "Frank Lloyd Wright Hall," is a 10,456-square-foot, three-story building located on Bush Street between Leavenworth and Hyde Streets, in the Downtown/Civic Center neighborhood; directly across Bush Street is the Nob Hill neighborhood (Photographs 55–58). Figure 9, ES-11: 1153 Bush St – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The building has 15 group-housing rooms and a capacity of 37 beds. The site is Lot 026 in Assessor's Block 0280.

Prior to AAU occupation in 1998, the building was used as an apartment building and residential hotel. The building was constructed in 1911. In addition to student housing, the property includes an outdoor patio, a half-court basketball area, a manager's office, a laundry room, a television room, and a recreation room.[423] There is no shuttle stop at this location; students walk approximately 670 feet to the shuttle zone located in front of 860 Sutter Street (ES-13) to catch AAU shuttle buses (routes D, E, G, H, I, M, and Sutter Express).

The site is zoned RC-4 (Residential – Commercial – Combined, High-Density), which allows high-density residential uses, senior housing, group housing including single-room occupancy (SRO) and student housing, retail uses on the first and second floors only, institutional uses and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. The height and bulk district is 65-A.

Tenant Improvements and Renovations

AAU updated bathrooms, and implemented seismic upgrades to the structure in accordance with the Unreinforced Masonry Building ordinance. The backyard was paved for a basketball court, the garage door was replaced, security bars were added to the ground-level windows on the rear and east elevations, and one window was partially in-filled and others were replaced without building permits. AAU added a canvas canopy and non-illuminated canopy sign over the main entrance without a building permit. The sign was later removed in 2013.[424]

Required Project Approvals

The 1153 Bush Street existing site (ES-11) would require a legislative amendment to San Francisco Planning Code (Planning Code) Section 317(f)(1), the Student Housing Legislation, to allow for conversion of residential units to student housing; a building permit under Planning Code Section 171; and a CU authorization under Planning Code Sections 209.3 and 303 to change the use from residential and residential hotel to student housing (group housing for a postsecondary educational institution) within an RC-4 Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

[423] *2011 IMP*, p. 93.
[424] Building Permits obtained for the improvements and renovations at ES-11 are: BPA #9816385 (bathroom updates) #200804018452 (non-illuminated sign, permit never issued), #201301248689 (wall sign removal), and #200310036508 (seismic upgrades).

Photograph 55. 1153 Bush Street (ES-11).

Photograph 56. Mid-block Bush Street, facing southwest.

Photograph 57. Mid-block Bush Street, facing northeast.

Photograph 58. Saint Francis Memorial Hospital, directly north of ES-11.

Plans and Policies and Land Use

ES-11 is located in the Downtown/Civic Center neighborhood. Directly across Bush Street to the north is the Nob Hill neighborhood in San Francisco.[425] The primary land use on Bush Street between Hyde and Leavenworth streets is residential; however, Saint Francis Memorial Hospital and a large medical building are located on the northeastern and southeastern corners of Bush and Hyde streets, respectively. The surrounding buildings on the subject block range from three stories (ES-11) to seven stories. AAU occupies a building one block east at 1080 Bush Street, which is used as group housing. ES-11 was built in 1911 as a single-family residence with associated guest rooms used for group housing. ES-11 is known as the "Frank Lloyd Wright Hall" and has 15 rooms, a study area, a recreation room, and a backyard with a half-court basketball area.

In the vicinity of ES-11, Bush Street is a three-lane, one-way eastbound street. Metered parallel parking is allowed on both sides of the street with motorcycle parking located at 1106 Bush Street. A No Parking red zone is situated directly in front of ES-11 and a large loading zone for Saint Francis Hospital is directly across Bush Street. A bus stop is located on the southeastern corner of Bush and Hyde streets. ES-11 is in the Lower Nob Hill Apartment Hotel National Register Historic District, which has a high concentration of residential and ground-floor retail/commercial uses.

The zoning near ES-11 is RC-4 (Residential – Commercial – Combined, High-Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses.[426] ES-11 is not located in a Special Use District or and adopted Area Plan. The height and bulk district for the eastern half of Bush Street between Hyde and Leavenworth streets is 65-A (which includes ES-11). The western portion of Bush Street is 80-A, including the hospital and medical building.

As noted above, use of ES-11 has been changed by AAU from residential and residential hotel to student housing (group housing for a postsecondary educational institutional use) with a computer lab, lounge, and recreation room. The change in use of the existing structure involved some exterior alterations including the addition of a canvas canopy over the entrance and seismic upgrades to the structure.

The change in use of the site from residential and residential hotel to student housing (group housing for a postsecondary educational institution) would conflict with the Planning Code because it requires a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

Group housing is allowed up to one bedroom per 140 square feet of lot area. The change in use would intensify AAU's presence in the vicinity, as AAU occupies a building at 1080 Bush Street, one block east of ES-11. The building at 1080 Bush Street is similarly used for group housing. The intensification could change the character of the neighborhood and introduce new patterns of use at the site (i.e., student populations would replace longer-term residents).

[425] City and County of San Francisco Planning Department, Neighborhood Groups Map, August 2014. Available online at http://www.sf-planning.org/index.aspx?page=1654. Accessed on January 25, 2016.
[426] Planning Code Section 209.2.

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the Planning Commission as a CU within an RC-4 Zoning District. ES-11 would require a building permit pursuant to Planning Code Section 171 and a Legislative Amendment to Planning Code Section 317(f)(1), Student Housing Legislation, because the change in use would convert residential units to student housing. Therefore the ES-11 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-11 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-11 is 37 residents (15 group-housing rooms). The change in use from dwelling units and group housing to student housing (group housing for a postsecondary educational institution) would not substantially alter the daytime population of the building because the previous residential use would have had a comparable capacity. However, the AAU rooms would generally contain more persons than a residential unit. Thus, student housing (group housing for a postsecondary educational institution) could have a slightly higher population density compared to the previous use. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-11 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[427]

Given the close proximity of other AAU student housing locations at 1080 Bush Street and 1055 Pine Street, the neighborhood population of AAU students is relatively high (approximately 314 student residents) on Pine and Bush streets, between Hyde and Mason streets. The student population would be typical of an urban neighborhood with a mixture of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[428] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[429] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-11.

---

[427] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

[428] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.

[429] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-11 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

The change in use at ES-11 from residential and residential hotel to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-11 could have resulted in displacement of people and existing housing units; however, the previous use as one dwelling unit and 14 group-housing rooms would not generate the need to construct replacement housing elsewhere. All former residents of the building moved to housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. ES-11 provides 37 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of group-housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or SRO to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to student housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-11 is located in the Downtown/Civic Center neighborhood; however, it more closely identifies with the Nob Hill neighborhood, which is located directly north of ES-11 across Bush Street. Nob Hill is one of San Francisco's signature neighborhoods, renowned for its landmarks, hotels, and unique position close to Downtown. The three-story building at ES-11 was built in 1911 and is a contributor to the Lower Nob Hill Apartment Hotel Historic District. The building exemplifies multi-family residential development in Lower Nob Hill during the post-1906 Earthquake and Fire Reconstruction period. ES-11 has a renaissance ornament detail with a pressed brick exterior. ES-11 is bounded by Bush Street to the north, buildings to the east and west, and a backyard to the south. Several mature street trees line both sides of Bush Street; however, none are located in front of ES-11.

The Nob Hill area is characterized by a mixture of hotel, institutional, and high-density residential uses. The Fairmount Hotel and Intercontinental Mark Jacobs Hotel, two grand and prominent San Francisco buildings, are located to the northeast. Grace Cathedral, the largest Gothic church in the west, and Huntington Park are located two blocks north of ES-11. The Lower Nob Hill Apartment Hotel District consists of mainly three- to seven-story multi-unit residential buildings that were constructed between 1906 and 1925, giving them a remarkable consistency in style. The neighborhood has many historic apartment buildings with lush, impressive façades, but also includes a mixture of modest apartment buildings. Neighborhood-serving retail operations are generally located on corner intersections. Because ES-11 is on the border between Downtown/Civic Center and Nob Hill, uses besides residential are more common. Non-residential uses include buildings on the subject block such as the Dignity Health's Saint Francis Memorial Hospital and associated medical offices located on the corner of Bush and Hyde streets.

The scale of the buildings on the subject block vary, and range from three to seven stories. A majority of the buildings are residential with the exception of the aforementioned medical uses. Buildings are adjoined and extend to the sidewalk, creating a continuous urban façade. Due to the urban character of the neighborhood, bordering roadways contain a high volume of traffic. The density of development and activity generates a considerable amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-11 has caused no visual changes to the building and neighborhood character. One awning has been installed, but there is no associated AAU signage. No other exterior alterations indicative of AAU's use have ensued at the subject property. Therefore, no substantial effects to aesthetics has occurred from the change in use at ES-11.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

1153 Bush Street (ES-11) is a three-story brick building constructed in 1911. The building is L-shaped in plan and capped with a flat roof, trimmed along the façade with a Classical Revival cornice with scrolled modillions and applied ornamental detailing. A one-story brick-clad garage occupies the western portion of the lot. The building is set flush to the sidewalk, with an open space at the rear of the property. With its Classical Revival-inspired style, the building displays a symmetrical design composition and fenestration pattern. On the primary elevation, the focal point of the design is the first-floor entrance, which is marked by a recessed door framed beneath an elaborate entablature, accented with a dentil course and attached partial pilasters. The entrance consists of a wood door with a large glass panel and side lights. A second recessed entry to the basement is located on the western portion of the façade. Although the ornamental program of the building is spare, aesthetic effect is achieved through the subtle variations in patterns and profile of the brick sheathing. Brick belt courses and a thin projecting row of bricks frame the window openings on the second and third stories. Serving a keystone-like accents above the third-story windows are two attached plaster emblems. Fenestration generally consists of wood double-hung and fixed-pane windows, as well as vinyl double-hung windows. Security gates have been added in front of the doors and security bars in front of the basement windows. The secondary elevations feature a simplified cornice on the east and west elevations, and shallow brick copping at the eave line on the south elevation. Fenestration patterns on the side elevations mirror those of the façade, with symmetrically arranged, multi-light wood and vinyl double-hung and fixed windows. The building also exhibits stained-glass windows on the side elevation. Metal security bars have been installed over some of the basement windows.

The main entry leads to a lobby, main staircase, and rooms with a number of original, character-defining features. An open dining room with an original paneled ceiling is located off the living room. Contributing interior features include wood door frames and trim, wood paneling and banister, original chandeliers, and an open wood fireplace. Carpet has been installed on the stairs and floors, and non-original fluorescent lights have been added. Although the room configuration appears to have been retained on the first floor, some of the upper-floor rooms have been reconfigured (for representative photographs refer to Photographs 59–61).

Photograph 59. 1153 Bush Street.

Photograph 60. 1153 Bush Street, detail of primary entrance.

Photograph 61. Interior of subject property, with contributing, character-defining interior spaces and features.

Site History

1153 Bush Street (ES-11) was constructed in 1911 for an estimated cost of $25,000. The three-story building, with basement, was designed by the San Francisco-based architecture firm Welsh & Carey. The firm was established by Thomas J. Welsh (1847–1918), a native of Australia and a reasonably prolific architect in and beyond the San Francisco Bay Area; Welsh also served as the architect for the San Francisco Board of Education.[430]

The building was commissioned by Dr. S.J. Hunkin, an orthopedic surgeon originally from Cornwall, England.[431] Hunkin moved to California in 1884, studying at Cooper Medical College. In 1895, Hunkin married Lota Buchner; after commissioning 1153 Bush Street, he resided and worked in the building, which served as a multi-family dwelling. In 1911, the *San Francisco Chronicle* noted the building's construction:

> Dr. S.J. Hunkin is building a three-story and basement brick residence for himself on Bush street [sic], between Leavenworth and Hyde streets. Welsh & Carey are the architects, and they have designed a highly attractive house of the fire-proof type. The building will contain offices for the owner and a garage. The first floor will be occupied exclusively as offices and reception rooms, and the two upper stories for the residence. Southern gum wood is used for the finish of the reception rooms and other main rooms. The living room occupies the entire front, and has a large open fireplace, with the mural decoration in harmony with the wood finish. Hardwood floors will be laid throughout the house.[432]

Upon Hunkin's death in 1930, the *San Francisco Chronicle* described him as an orthopedic surgeon who "had built up a world-wide reputation."[433] Following his death, by 1935, the building was

[430] John Chase, Judith Steen, and Daniel Platt Gregory, *The Sidewalk Companion to Santa Cruz Architecture* (Kestrel Press, 2005).
[431] San Francisco Chronicle, Heart Attack Fatal to Dr. S.J. Hunkin, October 12, 1930.
[432] San Francisco Chronicle, Future for City Realty Is Full of Promise and Confidence, July 29, 1911.
[433] San Francisco Chronicle, Dr. Hunkin's Rites Held, October 12, 1930.

occupied through at least the late 1930s by The Samaritan Treatment for Alcoholism, an early alcohol treatment center that addressed "excessive drinking as a disease."[434] A 1935 advertisement for the group's two Bay Area locations, at 1153 Bush Street and in the Richfield Oil Building in Oakland, asserted that "The misery of alcoholism need not be endured."[435] With centers throughout the United States, The Samaritan Treatment for Alcoholism appears to have been popular at the time but also criticized for its promise of offering a 48-hour cure:

> Any treatment that claims to cure alcoholism in 'little more than two days' is a fake. The sobering-up process may not take much more time, but anyone who is familiar with the sprees of an alcohol addict knows very well that sobering up doesn't mean cure… The excessive use of alcohol is a symptom of a deep-rooted emotional maladjustment, involving the entire personality of the drinker. It is absurd to claim that a few days of hocus-pocus will re-make a personality.[436]

By circa 1940 and into subsequent decades, the property appears to have transitioned from a mixed-use office-residential space to solely multi-family residential use.

<u>California Register of Historical Resources Evaluation</u>

1153 Bush Street (ES-11) is listed on the National Register of Historic Places (NRHP) as a contributor to the Lower Nob Hill Apartment Hotel Historic District. As such, it is a historical resource for purposes of the California Environmental Quality Act (CEQA). The subject property was also evaluated for eligibility for the California Register of Historical Resources (CRHR). In addition to being listed on the NRHP, 1153 Bush Street is eligible for the CRHR under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 Earthquake and Fire Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact example of a Classical Revival residence and a contributor to this historic district of multi-family residences.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[437] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 1153 Bush Street retains integrity and remains CRHR-eligible. With few major alterations, the subject property retains integrity and remains eligible as a contributor to the NRHP historic district and as a CRHR-eligible historical resource. The period of significance is 1911 to 1940.

---

[434] *Polk's Crocker-Langley San Francisco City Directory*, 1938 (San Francisco, CA: R.L. Polk and Company).
[435] Advertisement, The Samaritan Treatment for Alcoholism, *Indian Valley Record* (Greenville, Plumas County, California), 26 December 1935.
[436] Health and Hygiene, Questions and Answers, October 1938, p. 21.
[437] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

<u>Character-Defining Features Summary</u>

Exterior

- Scale and massing: low-rise, rectilinear volume
- Single-story attached garage
- Flush with sidewalk, open space at rear
- Flat roof with shallow eaves, finished with Classical Revival cornice, modillions and applied ornament
- Brick sheathing, with aesthetic effect achieved through subtle variations in recessed/raised brick patterning, around windows
- Symmetrical fenestration pattern
- One-over-one single and paired double-hung windows
- Primary entrance with Classical Revival-style detailing (entablature and cornice lined with dentil course)
- Stained glass windows on rear elevation
- Raised, board-form concrete foundation on side and rear elevations

Interior

- Spatial arrangement: formal entryway with stairs and residential units located off shared common spaces
- Staircase with wood railings, banister, and ornamental detailing
- Wood wainscoting and wall paneling
- Textured wallpaper
- Wood floors and door surrounds, accented with dentil course
- Paneled ceiling in dining room
- Multi-light and wood-paneled doors
- Built-in cabinets
- Wood and tile fireplace with ornamental detailing

<u>Secretary of the Interior's Standards Analysis</u>

This section presents a description and analysis of all known alterations completed by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

Canopy: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships and therefore complies with Rehabilitation Standard No. 1.

Window Infill/Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.*

Canopy: The project does not comply with Rehabilitation Standard No. 2. According to historic photographs, the canopy currently over the principal entrance was not originally present. The canopy covers and partially obscures the Classical Revival-style entrance and ornamental details that are the focal point of the building's design. The entrance is marked by a Classical Revival-style entablature and cornice, lined with a dentil course, and flanked by attached square capitals. Other character-defining features include the primary entrance's large rectangular wall opening, entrance portico, and deeply recessed door. (The door is currently fronted by a non-original security gate.) Character-defining features of the building overall include its symmetrical design composition, decoratively patterned brick, paired and single wood-framed windows, and a roofline spanned by an entablature with molded cornice, accented with dentils.

Because the building's decorative program is relatively minimal, the primary entrance, as well as the prominence of the entrance in the building's design, are all the more important in the building's design. The entrance canopy alters the shape and appearance of the principal entrance and its decorative Classical Revival-style entrance. Therefore, the entrance canopy does not comply with Rehabilitation Standard No. 2.

Window Infill/Replacements: The project does not comply with Rehabilitation Standard No. 2. The infill and installation of vinyl windows on the secondary elevation is not consistent with the distinctive materials of the historic fenestration on the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Canopy: The project does not comply with Rehabilitation Standard No. 3. The canopy introduces an element that is not reflective or representative of the property's historic significance, use, or appearance.

Window Infill/Replacements: The project does not comply with Rehabilitation Standard No. 3. The infill and non-original vinyl windows introduce an element that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Canopy: The project does not comply with Rehabilitation Standard No. 5. Mounting brackets are installed directly into the masonry wall of the entryway; this masonry wall is among the distinctive materials, features, and finishes that characterize the property. The project is likely to have resulted in damage to these materials through their removal or destruction with the installation of the canopy.

Window Infill/Replacements: The project as not in compliance with Rehabilitation Standard No. 5 as it resulted in the infill of a window opening, a distinctive feature of the building.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Window Infill/Replacements: The project is not in compliance with Rehabilitation Standard No. 6 as it resulted in the installation of incompatible windows rather than the repair of existing windows.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Canopy: The project does not comply with Rehabilitation Standard No. 9. According to historic photographs, the canopy currently over the principal entrance was not originally present. The building's symmetrical design composition, decoratively patterned brick sheathing, and prominent, ornamental entrance are all considered character-defining. As it appears today, the entrance canopy alters the shape and appearance of the principal entrance and partially obscures its decorative Classical Revival-style cornice and entablature. In addition, the canopy also negatively affects scale and proportion of the entrance portico, which was designed to be the focal point of the building. Therefore, the addition of the entrance canopy does not comply with Rehabilitation Standard No. 9.

Window Infill/Replacements: The project does not comply with Rehabilitation Standard No. 9. The infill and window replacements are not compatible with historic materials and features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Canopy: The project complies with Rehabilitation Standard No. 10. The canopy has not permanently impaired the essential form and integrity of the historic property. The prominent, ornamental entryway is still present behind the canopy. If the canopy were to be removed, the essential form and integrity of the property would remain intact.

Window Infill/Replacements: The project complies with Rehabilitation Standard No. 10. The infill and window replacements have not permanently impaired the essential form and integrity of the historic property. The form of the window openings is still present and if removed, the essential form and integrity of the property would remain intact.

Conclusion

The following recommended and optional Condition of Approval is suggested to facilitate bringing the building at 1153 Bush Street (ES-11) into compliance with the Secretary of the Interior's Standards.

Recommended Condition of Approval, ES-11: HR-1, Canopy Removal. Any wall perforations or damage to historic materials shall be repaired, patched, and refinished to match existing surfaces in materials and appearance.

Optional Condition of Approval, ES-11: HR-O-1, (Optional) Windows. The window removal and replacement does not meet Standards Nos. 2, 3, 5, 6, or 9. However, these elevations are not visible from the public right-of-way, and the affected features are considered of secondary character-defining importance. The Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS)-compliant approach would be to remove and replace infill and vinyl windows with period-appropriate windows. Design of replacement windows shall be based on evidence (historic photographs, extant historic windows) rather than conjecture.

Archaeology and Paleontology

Building alterations at ES-11 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-11 is located on the south side of Bush Street between Leavenworth and Hyde streets in the Nob Hill area. The 5,841 square-foot parcel is located in a residential and commercial district. The approximately 10,456-square-foot, three-story building was previously used as residential units and a residential hotel. AAU currently uses the site for student housing with 15 group-housing units for a total of 37 beds.

The site includes a one-car garage accessed from Bush Street that is currently used to store the executive car(s).[438] There are two pedestrian entries to the building along Bush Street: the main pedestrian entry, and a secondary entry for garbage disposal and access to the interior sidewalk. One bicycle rack (eight spaces) is provided on the interior sidewalk accessible via the secondary entry. There is no AAU shuttle stop provided at this site. The nearest AAU shuttle service is provided in front of 860 Sutter Street (ES-13), approximately 750 feet southeast from ES-11, served by seven shuttle routes (D, E, G, H, I, M and Sutter Express).

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the AAU student housing use at this site generates approximately 18 person trips (eight inbound trips and ten outbound trips) and no vehicle trips during the weekday PM peak hour.

[438] Executive vehicles include those driven and or approved by AAU's executive staff for the operation of AAU.

Traffic

There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The following includes a discussion of existing roadway systems in the vicinity of the AAU sites in this area, particularly focusing on ES-11, including roadway designations, number of lanes, and traffic flow directions. Subsequent site discussions will refer back to these discussions where conditions are the same, with a brief summary of the surrounding roadways, or discuss differences where appropriate. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *Better Streets Plan*.[439,440] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[441]

Pine and Bush streets operate as a one-way couplet and with three to four travel lanes that have high capacities for vehicles during the peak hours. Traffic signals along both of these corridors are well-synchronized. Traffic volumes along Pine Street are very heavy in the westbound direction during the AM peak period, but more moderate during the PM peak period. Traffic volumes along Bush Street are moderate to high during both AM and PM peak period. The San Francisco Municipal Transportation Agency (SFMTA) operates six Muni bus routes (1AX-California “A” Express, 1BX-California “B” Express, 31AX-Balboa “A” Express, 31BX-Balboa “B” Express, 38AX-Geary “A” Express and 38BX-Geary “B” Express) along these two streets, but they do not stop in the vicinity of this AAU site. Transit service near ES-11 is further discussed below. AAU shuttle routes (D, M and Sutter Express) currently run adjacent to the site on Bush Street, but they do not stop at ES-11.

Pine Street is an east-west residential throughway that runs between Presidio Avenue and Montgomery Street. In the vicinity of ES-11, Pine Street has three westbound lanes and 2-hour time restricted parking on both sides of the street. The parking lane along the south curb converts into a vehicle travel lane during the PM peak period between 3:00 p.m. and 6:00 p.m., increasing the total number of travel lanes to four during this period. The *San Francisco General Plan* classifies Pine Street as a Major Arterial in the CMP Network. Pine Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. In the vicinity of ES-11, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City’s Vision Zero network.

[439] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[440] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[441] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

Sutter and Post streets also operate as a one-way couplet, similar to Pine and Bush streets, with two to three travel lanes and transit-only lanes that have moderate capacities for vehicles. Traffic volumes along Sutter and Post streets are moderate to high during both the AM and PM peak periods. Sutter and Post streets have two Muni routes (2-Clement and 3-Jackson) with the nearest stops at the Sutter Street/Hyde Street intersection.

Sutter Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Battery Street. In the vicinity of the AAU sites, Sutter Street has two westbound vehicle lanes, a westbound transit-only lane and metered parking on both sides of the street. The parking lane along the north side of the street converts into a travel lane during the PM peak period between 4:00 p.m. and 6:00 pm., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Sutter Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Sutter Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Post Street is an east-west downtown residential street that runs between Presidio Avenue and Market Street. In the vicinity of these AAU sites, Post Street has two eastbound vehicle lanes, one transit-only lane, and metered parking on both sides of the street. The *San Francisco General Plan* classifies Post Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Post Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Hyde Street is a north-south downtown residential street that runs between Fisherman’s Wharf and Market Street. In the vicinity of the AAU sites, Hyde Street has three southbound lanes and unmetered (2-hour time restricted) parking on both sides of the street. The *San Francisco General Plan* classifies Hyde Street as a Secondary Arterial in the CMP Network. Hyde Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Leavenworth Street is a north-south downtown residential street that runs between Fisherman’s Wharf and McAllister Street. In the vicinity of ES-11, Leavenworth Street has two northbound lanes and unmetered (2-hour time-limited) parking on both sides of the street. The *San Francisco General Plan* classifies Leavenworth Street as a Secondary Arterial in the CMP Network. Leavenworth Street south of Sutter Street is designated as a High Injury Corridor in the City’s Vision Zero network.

The AAU student housing use at ES-11 along with nearby AAU student housing sites at 1080 Bush Street (ES-12), 860 Sutter Street (ES-13), 817-831 Sutter Street (ES-14), 1055 Pine Street (ES-17), and 620 Sutter Street (ES20) are not expected to generate a substantial amount of vehicle trips to adjacent streets during the PM peak hour because residential students are discouraged from driving private automobiles. Even in combination with the 24 PM peak vehicle trips generated by the postsecondary educational institutional use at 491 Post Street (ES-23) and a residential amenity at 1069 Pine Street (ES-16), traffic operating conditions in the vicinity have not been substantially altered by student housing uses at this site or other AAU uses at nearby sites.

There is a curb cut on Bush Street for access to the on-site parking garage. This parking space is used to store executive vehicles.[442] Potential for conflicts is low due to low vehicle activity at this driveway.

Transit

The student housing use at ES-11 generates one transit trip during the weekday PM peak hour. This is primarily due to residential students utilizing AAU shuttles, including on weekends. This site is served by Muni bus lines 2-Clement and 3-Jackson that operate along Sutter and Post streets, and 27-Bryant that operates along Leavenworth Street. The nearest bus stops to ES-11 are located on Bush Street east of Hyde Street for the 27-Bryant line, and at the Hyde Street/Sutter Street intersection for the 2-Clement and 3-Jackson lines. The bus stop on Bush Street includes a shelter and signage with transit information, but the stop on Hyde Street (at Sutter Street) does not (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). SFMTA operates six Muni bus routes (1AX-California "A" Express, 1BX-California "B" Express, 31AX-Balboa "A" Express, 31BX-Balboa "B" Express, 38AX-Geary "A" Express and 38BX-Geary "B" Express) along Pine and Bush streets, but they do not stop (between Presidio Avenue and Montgomery Street) in the vicinity of AAU sites.

Table 60 presents the AM, midday, and PM frequencies, and passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour for Muni lines serving ES-11 as well as other nearby AAU sites (e.g., 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]). All 17 Muni lines, including Routes 2-Clement, 3-Jackson, and 27-Bryant that directly serve ES-11 as well as the other nearby AAU sites, operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

Table 60. 1153 Bush Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
1AX – California "A" Express	33rd Ave and Geary to Davis via California, Pine, and Bush	10	N/A	12	219	Pine St/ Montgomery St	66%
1BX – California "B" Express	6th Ave and California to Davis via California, Pine, and Bush	8	N/A	10	245	Pine St/ Montgomery St	71%
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%

[442] Executive cars include those driven and or approved by AAU's executive staff for the operation of AAU

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
8 – Bayshore	City College to Kearny and North Point via U.S. 101	7.5	9	7.5	N/A	N/A	N/A
8AX – Bayshore “A” Express	Columbus and Pacific to Geneva and Schwerin via U.S. 101	6	N/A	7	568	Harrison St/ 6th St	75%
8BX – Bayshore “B” Express	City College to Kearny and North Point via U.S. 101	6	N/A	7	480	Geneva Ave/ Paris St	63%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St / 8th St	46%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
31AX – Balboa “A” Express	La Playa to Davis via Balboa, Masonic, Pine and Bush	10	N/A	10	269	Pine St/ Montgomery St	74%
31BX – Balboa “B” Express	Park Presidio and Balboa to Davis via Balboa, Masonic, Pine and Bush	10	N/A	10	164	Pine St/ Montgomery St	47%
38AX – Geary “A” Express	48th Ave and Geary to Davis via Geary, Pine, and Bush	10	N/A	12	188	Pine St/ Montgomery St	57%
38BX – Geary “B” Express	25th Ave and Geary to Davis via Geary, Pine, and Bush	10	N/A	12	209	Pine St/ Montgomery St	63%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St, and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
76X – Marin Headlands Express	Market and Sansome to 1st St and Mitchell via Golden Gate Bridge, Lombard, Sutter, and Post	N/A	60 (Sundays and Holidays Only)	60 (Sundays and Holidays Only)	N/A	N/A	N/A

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
Powell-Mason	Fisherman's Wharf to Powell and Market via Mason and Powell	10	8	8	N/A	N/A	N/A
Powell-Hyde	Victorian Park to Powell and Market via Hyde and Powell	10	8	8	N/A	N/A	N/A

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed:

- Route 1AX-California "A" Express would add new stops at Pine Street (PM) and Bush Street (AM) at Van Ness Avenue.
- Route 1BX-California "B" Express would add new stops at Pine Street (PM) and Bush Street (AM) at Van Ness Avenue. It would eliminate service along Bush Street between Fillmore Street and Gough Street and instead run along California Street in the eastbound direction.
- Route 2-Clement would increase frequency east of Presidio Avenue during AM and PM peak from 12 to 7.5 minutes.
- Route 3-Jackson would reduce frequency during AM and PM peak from 12 to 15 minutes and reduce evening frequency after 7:00 p.m. from 20 to 30 minutes until 11:00 p.m.
- Route 8-Bayshore would increase frequency during AM peak from 7.5 to 6 minutes, and PM peak from 7.5 to 7 minutes.
- Route 8AX-Bayshore "A" Express increased frequency during AM peak from 8 to 6 minutes and PM peak from 7.5 to 7 minutes.
- Route 8BX-Bayshore "B" Express increased frequency during AM peak from 8 to 6 minutes and PM peak from 7.5 to 7 minutes.
- Route 30-Stockton would increase frequency east of Van Ness Avenue during AM peak from 4 to 3.5 minutes and west of Van Ness Avenue from 8 to 7 minutes.
- Route 31AX-Balboa "A" Express would add a new transit stop at Van Ness Avenue.
- Route 31BX-Balboa "B" Express would add a new transit stop at Van Ness Avenue.
- Route 38AX-Geary "A" Express would add new transit stops to improve transfer connections at Van Ness Avenue.
- Route 38BX-Geary "B" Express would add new transit stops to improve transfer connections at Van Ness Avenue.
- Route 76X-Marin Headlands Express would run on Saturdays, Sundays and holidays (currently Sundays and holidays only).

The AAU student housing use at ES-11 generates one PM peak hour transit trip. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased transit demand, even in combination with the 132 transit trips from other nearby AAU sites under analysis (i.e., 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), has not made a substantial contribution to the transit service in the area. There is no existing shuttle stop provided at this site; thus, AAU shuttle service does not substantially conflict with the operation of transit vehicles.

Shuttle

The AAU student housing use at ES-11 generates approximately ten shuttle riders during the PM peak hour with five riders in each direction. AAU shuttle Routes D, M and Sutter Express currently run adjacent to the site on Bush Street. However, as indicated above, no shuttle stop is provided at ES-11. Instead, students walk approximately 750 feet to the 47-foot-long white curbed shuttle zone located in front of 860 Sutter Street (ES-13) to catch AAU shuttle bus routes (D, E, G, H, I, M and Sutter Express) in 2015. Shuttle passengers likely walk to the shuttle stop at 860 Sutter Street via Leavenworth and Sutter streets. This shuttle stop was served by five shuttle bus routes (D, H, I, Q and R) in 2010. Route D operated every 20 minutes, Routes H and I each operated every 15 minutes, and Routes Q and R each operated every 30 minutes throughout the day. The total seating capacity for these five routes was 728 seats in the PM peak hour. Routes D, H, I, Q and R operated at 30, 63, 78, 29 and 18 percent capacity at the MLP, respectively, in 2010. During the shuttle peak hour, Routes D, H, I, Q and R operated at 64, 126, 130, 96 and 55 percent capacity, respectively at the MLP, with two routes (H and I) operating above the total seating capacity. MLPs occur at 860 Sutter Street on Route D, at 466 Townsend Street and on Route H, at 79 New Montgomery on Route I, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. As of spring 2015, six regular and one express shuttle bus routes (D, E, G, H, I, M and Sutter Express) serve this stop. These routes operate with a total seating capacity of 505 in the PM peak hour, a 30 percent reduction in service.

The ten PM peak hour shuttle bus riders, in combination with the estimated 326 shuttle bus riders from nearby existing AAU sites (i.e., 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), are likely accommodated on these routes. However, since these routes also serve other residential and institutional locations and two of the routes (H and I) operate above total seating capacity, a Condition of Approval to monitor shuttle demand on these routes is recommended below under Existing Constraints and Proposed Conditions of Approval.

A recommended Condition of Approval is suggested under the 860 Sutter Street site (ES-13) that would relocate the shuttle stop to 491 Post Street or an alternate location during the PM peak period.

Pedestrian

The AAU student housing use at ES-11 generates approximately 17 pedestrian trips during the PM peak hour: six walking, one transit and ten shuttle trips. Bush, Hyde, and Sutter streets are designated as a High Injury Corridors under the City's Vision Zero Improvement Plan.[443] Intersections near this AAU residential site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Bush Street/Hyde Street and Bush Street/Leavenworth Street intersections have pedestrian crossing signal heads. Sidewalks along Bush Street and Leavenworth Street are approximately 10 and 14 feet wide, respectively. There is a curb cut located in front of the garage on the site. The primary pedestrian access to the site is from Bush Street through the main doorway. A secondary entrance located next to the garage provides an access to the interior sidewalk.

Pedestrian volumes were observed to be generally low to moderate in the vicinity of this site and pedestrians were observed to move freely on the sidewalks and in the crosswalk areas. The land uses in the area are predominately residential, but St. Francis Memorial Hospital is located across the street from ES-11, which increases the pedestrian activity along Bush Street to a moderate level. However, there was no indication of overcrowding within the sidewalk areas. Since the single car garage is used to store the executive car, no instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations were observed.[444] Adjacent pedestrian facilities accommodate the estimated 17 pedestrian trips in combination with approximately 701 pedestrian trips generated from other nearby AAU sites (i.e., 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]).

Bicycle

The student housing use at ES-11 generates one bicycle trip during the PM peak hour. Bush Street is not a designated bicycle route. However, Route 16 is located on Sutter and Post streets. There is one bicycle rack on site providing a total of eight Class II bicycle parking spaces.[445] These bicycle parking spaces are directly accessed through the gated entry located next to the garage. This site generates a bicycle parking demand of approximately three spaces, which are generally accommodated in the existing eight bicycle parking spaces.[446]

The site's one PM peak hour bicycle trip, even in combination with 24 PM peak hour bicycle trips from nearby AAU sites under analysis (i.e., 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), has not substantially affected the operation or capacity of bicycle facilities in the area.

Loading

The student housing use at ES-11 generates limited freight loading activities (less than one daily truck trip). This site does not have any off-street loading spaces, nor any on-street freight (yellow) spaces adjacent to the site. The nearest on-street commercial parking space is located on the north

---

[443] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.
[444] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.
[445] Bicycle parking data was provided by AAU and verified by Planning Department staff.
[446] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

side of Bush Street west of Hyde Street, approximately 370 feet west of this site. The one-car parking garage on site is used to store the executive vehicle.

Field observations of commercial loading activities in the area were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. No AAU freight/delivery vehicles or related activities were observed and general commercial activity in the area was low to moderate along Bush Street and Hyde Street due to predominantly residential uses in the area. The service entrance for the hospital across Bush Street from ES-11 is located on Pine Street. As discussed below, on-street parking spaces along these streets experience high parking utilization during the midday period, which indicates that curb spaces are generally limited on these streets for loading activities. It is likely that the infrequent commercial deliveries to ES-11 utilize available on-street parking or other commercial loading spaces in the vicinity (such as one yellow space located on the north side of Bush Street west of Hyde Street). Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU student housing use as noted during site visit has not substantially altered commercial loading conditions in the vicinity.

Garbage collection at this site occurs on the south side of Bush Street, next to the entrance for the site. Trash receptacles are pulled through the interior sidewalk through the secondary entry and placed along the sidewalks at designated areas. Garbage collection along Bush Street occurs four times a week in the early morning hours.

Parking

The AAU student housing use at ES-11 is not expected to generate a substantial amount of parking demand because students are not permitted to park private vehicles at residential sites and AAU discourages students from bringing private vehicles into San Francisco.[447] The site includes one off-street parking space, which is occasionally used by AAU faculty or staff. Peak occupancy data for this parking facility is unavailable. Although the site did not result in a regular increase in parking demand, an on-street parking survey was conducted along streets adjacent to ES-11 and other nearby AAU sites such as 1080 Bush Street (ES-12), 860 Sutter Street (ES-13), 817-831 Sutter Street (ES-14), 1069 Pine Street (ES-16), 1055 Pine Street (ES-17), 620 Sutter Street (ES-20), and 491 Post Street (ES-23) during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces in the vicinity of ES-11 and seven other nearby AAU sites are generally time limited (2-hour) and consist of a mix of metered and unmetered parking spaces. Table 61 summarizes on-street parking supply and weekday midday occupancy for streets near ES-11 and other nearby AAU sites such as 1080 Bush Street (ES-12), 860 Sutter Street (ES-13), 817-831 Sutter Street (ES-14), 1069 Pine Street (ES-16), 1055 Pine Street (ES-17), 620 Sutter Street (ES-20), and 491 Post Street (ES-23). There are a total of 231 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was moderate to high, averaging about 86 percent between 1:00 p.m. and 3:00 p.m. Parking occupancy in the immediate vicinity of this AAU site was

[447] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed April 20, 2016.

100 percent along Bush Street between Hyde and Leavenworth streets. However, the AAU student housing use at ES-11 is not expected to have substantially affected parking conditions.

Table 61. 1153 Bush Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Hyde St	Bush St	Sutter St	East	12	12	100%
Bush St	Hyde St	Leavenworth St	North	9	9	100%
			South	10	10	100%
Leavenworth St	Pine St	Bush St	East	9	8	89%
Pine St	Leavenworth St	Jones St	South	16	6	38%
Jones St	Pine St	Bush St	West	13	13	100%
			East	12	11	92%
Pine St	Jones St	Taylor St	North	16	10	63%
			South	15	12	80%
Taylor St	Pine St	Bush St	West	5	5	100%
Bush St	Leavenworth St	Jones St	North	11	8	73%
			South	16	13	81%
Leavenworth St	Bush St	Sutter St	West	12	12	100%
			East	11	8	73%
Sutter St	Hyde St	Leavenworth St	North	7	6	86%
Sutter St	Leavenworth St	Jones St	North	5	3	60%
			South	13	14	108%
Leavenworth St	Sutter St	Post St	East	10	11	110%
Jones St	Sutter St	Post St	West	7	5	71%
Jones St	Bush St	Sutter St	West	9	9	100%
Taylor St	Bush St	Sutter St	East	4	4	100%
Sutter St	Taylor St	Mason St	North	0	0	0%
			South	0	0	0%
Mason St	Bush St	Sutter St	West	9	9	100%
Post St	Mason St	Powell St	North	0	0	0%
			South	0	0	0%
Mason St	Post St	Geary St	East	0	0	0%
Powell St	Post St	Geary St	West	0	0	0%
Total				**231**	**198**	**86%**

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

Given the limited amount of on-street parking, the locations of off-street parking within the study area, generally bounded by Sacramento Street, Hyde Street, Geary Street, and Powell Street, were examined. Table 62 lists 21 public off-street parking facilities with a total of 2,514 parking spaces in the area. Parking occupancy at off-street parking facilities was not observed.

Table 62. 1153 Bush Street – Off-Street Parking Supply

Address	Type	Capacity
1101 California St	Garage	500
644 Geary St	Garage	95
335 Powell St	Garage	250
501 Post St	Garage	74
50 Cosmo Place	Lot	N/A
660 Sutter St	Lot	27
665 Sutter St	Lot	180
1199 Bush St	N/A	50
1234 Pine St	Garage	100
750 Bush St	Garage	N/A
999 California St	Garage	80
818 Leavenworth St	N/A	90
1051 Taylor St	Garage	132
433 Mason St	Garage	110
1045 California St	Garage	225
569 Post St	Garage	100
490 Post St	Garage	126
500 Post St	Garage	160
542 Geary St	Lot	40
840 Sutter St	Garage	150
560 Geary St	N/A	25
Total		**2,514**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Station #3 (1067 Post Street) is the closest station to the AAU site, approximately 0.4 mile west. From the station, vehicles are able to access the AAU site via Polk and Bush streets and would be able to park along Bush Street. The St. Francis Hospital across the street has an approximately 160-foot-long white passenger zone that is mostly utilized by ambulances using the Emergency Department entrance there, and occasionally by private automobiles dropping off passengers going to the hospital.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, a constraint on the AAU use of ES-11 includes a potential need for additional shuttle service. To address this constraint, the following condition is recommended for consideration by decision makers:

Recommended Condition of Approval, ES-11: TR-1, Shuttle Demand and Capacity. AAU shall assess, adjust and monitor the shuttle bus capacity for Routes D, E, G, H, I, M and Sutter Express, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 1153 Bush Street (ES-11) is located on the south side of Bush Street between Leavenworth and Hyde streets in the Nob Hill neighborhood. AAU currently has 15 rooms and 37 beds at this site. This AAU residential location does not include a designated shuttle stop, although it is on the Route M shuttle route. No vehicle trips are generated by the uses in ES-11; students use the AAU shuttle system, bicycles, and public transit.[448] According to the San Francisco Transportation Noise Map,[449] the existing traffic noise level near ES-11 from vehicular traffic along Bush Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Bush Street currently exceed the “satisfactory” level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-11. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-11 building would have been and continue to be required to comply with the City’s Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-11 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-11.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-11 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code

[448] CHS Consulting Group, 2016. *AAU ESTM Transportation Section Draft #1A*. January 2016.
[449] San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels above 70 dBA L_{dn}, more insulation than is typically provided with conventional construction may be needed. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise-sensitive use to a noise sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-11, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1998, when AAU occupied the building. Area sources were estimated based on a 37 "dwelling unit" "Mid-Rise Apartments" land use designation in CalEEMod, to be conservative, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is an on-site heating steam boiler and a domestic hot water boiler at ES-11. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-11. Table 63 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-11, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

Table 63. 1153 Bush Street (ES-11) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.69	0.87	0.13	0.13	0.11	0.16	0.02	0.02
Energy	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	0.69	0.89	0.13	0.13	0.11	0.16	0.02	0.02
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57 explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-11 is not one of those sites; therefore, AAU occupation of ES-11 has not resulted in increased health risks for nearby sensitive receptors and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-11 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-11 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-11: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-11 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-11.

Recreation

As shown on Figure 4, p. 3-63, 1153 Bush Street (ES-11) is located within 0.25 mile of one San Francisco Recreation and Park Department (RPD) park: Sgt. John Macaulay Park. Sgt. John Macaulay Park, located at Larkin and O'Farrell streets, features children's climbing structures, slides, tire swings, and seating.[450] Other publicly owned parks are within a 0.5-mile distance of ES-11, including Tenderloin Recreation Center, Huntington Park, and Father Alfred E. Boeddeker Park.

As described in Population and Housing on p. 4-272, the capacity of ES-11 is 37 beds. The change in use from dwelling unit and group housing to student housing (group housing for a postsecondary educational institutional) at ES-11 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Sgt. John Macaulay Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other resting areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-11 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous residential land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[451] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-11. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

---

[450] San Francisco Recreation and Parks, Sgt John Macaulay Park. Available online at: http://sfrecpark.org/destination/sgt-john-macaulay-park/. Accessed on January 15, 2016.

[451] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[452] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-11 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[453] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[454] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-11 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[455] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

[452] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[453] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[454] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[455] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

1153 Bush Street has a capacity of 37 beds (15 group-housing rooms). The change in use from dwelling unit and group housing to student housing (group housing for a postsecondary educational institution) within an RM-4 Zoning District would likely represent a slight change in the population of the area, as the population density of student housing is likely more than the previous residential use. However, the change would not be substantial because the student housing capacity is limited by the space in the building (15 group-housing rooms). Therefore, the change in use would have resulted in minimal additional police protection demand. No measurable changes in response times or crime statistics have occurred since the change in use. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-11.

Fire and Emergency Services

ES-11 is located within 1,700 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[456] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[457]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-11 meet the Citywide emergency transport goals.

As described above on p. 4-272, the change in use from residential to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-11.

[456] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[457] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

Libraries

The nearest public libraries to ES-11 are the Main Library, approximately nine blocks south of ES-11, and the Chinatown Branch Library, approximately ten block northeast of ES-11. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library and AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-272, the change in use from residential to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-11.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as a residential building could have contributed to the school-aged population of nearby schools. The change in use to student housing (group housing for a postsecondary educational institution) would reduce the school-aged population of nearby schools, because AAU students are mainly unmarried and without children.[458] In addition, AAU does not offer family housing.[459] The reduction in the school-aged population, if any, would be minimal. For the reasons stated above, no effect on schools occurred from the change in use at ES-11.

Biological Resources

ES-11 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-11. ES-11 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-11.

Geology and Soils

A Geotechnical Investigation or Phase I Environmental Site Assessment (ESA) has not been prepared for ES-11; however, the site is expected to have soil and groundwater conditions similar to nearby ES-12 (1080 Bush Street). ES-11 is likely underlain by a variable thickness of artificial fill that overlays well-sorted, fine- to medium-grained dune sands. The dune sands of San Francisco once formed an extensive coastal system, underlying about one-third of the City. The dune sand is

[458] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.4-17, February 2015.
[459] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

typically highly permeable and overlays bedrock. At the property and immediate vicinity, on top of the dune sand, is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is approximately 16 to 36 feet below ground surface and flows to the south and southeast, corresponding to surface topography.[460] Because building alterations undertaken by AAU were primarily interior and limited to minor exterior modifications, no substantial change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-11 would be very strong during a magnitude 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[461,462] ES-11 is not located within a liquefaction zone.[463] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-11 is a brick building and underwent a seismic upgrade in 2003 pursuant to the Unreinforced Masonry Building Ordinance.[464] Although the building could remain vulnerable during an earthquake, the change in use and subsequent building alterations have improved the building's structural risk from ground-shaking.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-11 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of a canopy, basketball court, and security bars). Regardless, wastewater and stormwater associated with the change in use at ES-11 and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

[460] Geologica, Inc., Phase I Environmental Site Assessment for 1080 Pine Street, March 2003.
[461] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[462] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[463] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[464] Permit #200310036508 (UMB Seismic upgrade).

ES-11 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[465] ES-11 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-11.

Hazards and Hazardous Materials

No Phase I ESA has been undertaken at ES-11. A search of Department of Toxic Control's Envirostor and the State Water Resources Control Board's Geotracker identified an underground storage tank (UST) that had leaked gasoline in 1965 and was subsequently cleaned up in 1999 by AAU.[466] Although the UST was present at the site, it seems unlikely that significant historic use of hazardous materials would have occurred, as the building was primarily used as a residence since construction. Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1911, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Prior to building alterations, materials were tested for ACMs and none were detected.[467] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-11 is used as a student housing building with a manager's office, laundry room, television room, and recreation room. Hazardous materials that are used, stored, and disposed of at ES-11 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-11.

[465] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[466] State Water Resources Control Board, Geotracker, 1153 Bush Street, Case #11268. Available online at http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607501285. Accessed on January 29, 2016.
[467] Environova, Limited Asbestos Survey, Academy of Art University, 1153 Bush Street, June 13, 2013.

Tenant improvements at ES-11 associated with the conversion of apartment space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-294. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[468] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-11, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at nearby 860 Sutter Street (ES-13). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-11 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-11 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-11 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[469] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-11 has had no substantial effects on agriculture or forest resources.

[468] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1153 Bush Street, March 4, 2016.

[469] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.11. 1080 Bush Street (ES-12)

Property Information

The 1080 Bush Street existing site (ES-12), also known as the Academy of Art University's (AAU's) "Leonardo Da Vinci Apartments," is a six-story-tall, 24,528-square-foot building, located on Bush Street between Leavenworth and Jones streets, in the Nob Hill neighborhood (Photographs 62–65). Figure 10, ES-12: 1080 Bush Street – Existing Condition, in Appendix TDM, shows the site and adjacent streets. ES-12 encompasses 42 apartments, 15 group-housing rooms, and has a capacity of 122 beds. The site is Lot 015 in Assessor's Block 0276.

Prior to AAU occupation in 1999, the building was a 42-unit apartment complex and 15-room residential hotel. In addition to student housing, the building has a manager's office, a laundry room, and a recreation room.[470] Two non-student tenants reside in two units.[471] There is no shuttle stop at this location; students walk approximately 670 feet to the shuttle zone located in front of 860 Sutter Street (ES-13) to catch AAU shuttle buses on routes D, E, G, H, I, M, and Sutter Express.

The site is zoned RC-4 (Residential – Commercial – Combined, High-Density), which allows high-density residential uses, senior housing, group housing including single-room occupancy (SRO) and student housing, retail uses on the first and second floors only, institutional uses, and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. The height and bulk district for Bush Street from approximately Hyde Street to Powell Street is 65-A.

Tenant Improvements and Renovations

AAU added two signs flanking the entrance, one of which was subsequently removed in 2010. AAU renovated and remodeled apartments and replaced lath and plaster with sheet rock in 1999 as part of its original occupancy. Other interior renovations included the addition of a manager's office, a unisex restroom, and a communal kitchen in 2005. AAU reroofed the building in 2011.[472] AAU replaced the western ground-level door in 2013 without a building permit.[473]

Required Project Approvals

The 1080 Bush Street existing site (ES-12) would require a legislative amendment to San Francisco Planning Code (Planning Code) Section 317(f)(1), the Student Housing Legislation, to allow for conversion of group-housing units to student housing for 15 group-housing rooms in the building; a building permit under Planning Code Section 171; and a CU authorization under Planning Code Sections 209.3 and 303 to change the use from residential to student housing (group housing for a

[470] *2011 IMP*, p. 92.
[471] *2011 IMP*, p. 92.
[472] Building Permits obtained for the improvements and renovations at ES-12: BPA #9903639 and #2000007205606 and #200509132785 (renovation and remodeling), #9901113 (lath and plaster removal), #200310278608 (illuminated sign), #201006104217 (sign removal), #201103071517 (reroofing), and #200007135032 and #200510034579 (office, restroom, and kitchen).
[473] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 62. 1080 Bush Street (ES-12).

Photograph 63. Bush Street at Leavensworth Street, facing northeast.

Photograph 64. Mid-block Bush Street, facing northeast.

Photograph 65. Bush Street at Leavensworth Street, facing east.

postsecondary educational institution) within a RC-4 Zoning District. The remaining 42 apartments do not require any discretionary approval. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

Plans and Policies and Land Use

ES-12 is located in the Nob Hill neighborhood. Directly across Bush Street to the south is the Downtown/Civic Center neighborhood. Land use on Bush Street between Leavenworth and Jones streets is primarily residential with supporting ground-floor commercial uses. Commercial uses include a gymnasium, dry cleaners, a hairdresser, nail salon, market, café, and several small retail operations. AAU occupies a building one block west at 1153 Bush Street (ES-11), which is used as group housing. ES-12 was built in 1913 as an apartment building. ES-12 is known as the "Leonardo Da Vinci Apartments" and has 42 apartments, 15 group-housing rooms, and one recreation room.

In the vicinity of ES-12, Bush Street is a three-lane, one-way eastbound street. Residential parallel parking is allowed on both sides of the street. A bus stop is located on the southeastern corner of Bush and Leavenworth streets. ES-12 is located in the Lower Nob Hill Apartment Hotel National Register Historic District, which has a high concentration of residential and ground-floor retail/commercial uses.

The zoning near ES-12 is RC-4 (Residential – Commercial – Combined, High-Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses.[474] ES-12 is not located in a Planning Area or a Special Use District. The height and bulk district for Bush Street from approximately Hyde Street to Powell Street is 65-A

As noted above, use of ES-12 has been changed by AAU from a residential hotel to student housing (group housing for a postsecondary educational institutional use). The change in use of the existing structure involved some exterior alterations including installation of signage and reroofing of the building.

The change in use of the site from a residential hotel to student housing (group housing for a postsecondary educational institution) would conflict with the Planning Code because it would require a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

Group housing is allowed up to one bedroom per 140 square feet of lot area. The change in use would intensify AAU's presence in the vicinity, as the AAU occupies a building at 1153 Bush Street, one block west of ES-12. The building at 1153 Bush Street is similarly used for group housing. The intensification could change the character of the neighborhood and introduce new patterns of use at the site (i.e., student populations would replace longer-term residents).

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the Planning Commission as a Conditional Use within an RC-4 Zoning District. ES-12 would require a building permit pursuant to Planning Code Section 171 and a Legislative

[474] Planning Code Section 209.2.

Amendment to Planning Code Section 317(f)(1), Student Housing Legislation, because the change in use would convert residential units to student housing. Therefore the ES-12 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-12 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-12 is 122 residents (42 apartments and 15 group-housing rooms). The change in use from residential to student housing (group housing for a postsecondary educational institution) would not substantially alter the daytime population of the building because the previous residential use would have had a comparable capacity. However, the AAU rooms would generally contain more persons than a residential unit. Thus, student housing (group housing for a postsecondary educational institution) could have a slightly higher population density compared to the previous use. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-12 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[475]

Given the close proximity of other AAU student housing locations at 1153 Bush Street and 1055 Pine Street, the neighborhood population of AAU students is relatively high (approximately 314 student residents) on Pine and Bush streets, between Jones and Mason streets. An AAU building with a gymnasium is also located adjacent and to the west at 1069 Pine Street. The student population would be typical of an urban neighborhood with a mixture of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[476] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[477] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-12.

---

[475] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

[476] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.

[477] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-12 and all existing sites is discussed under the combined housing discussion, pp. 3-46 – 3-47.

The change in use at ES-12 from residential hotel to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-12 could have resulted in displacement of people and existing housing units; however, the previous use as 42 dwelling units and 15 group-housing rooms would not establish the need to construct replacement housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. ES-12 provides 122 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of residential units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or SRO to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to student housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-12 is located in the Nob Hill neighborhood, which is one of San Francisco's signature neighborhoods, renowned for its landmarks, hotels, and unique position close to Downtown. The Downtown/Civic Center neighborhood is located directly across Bush Street from ES-12. ES-12 is six stories, was built in 1913, and is a contributor to the Lower Nob Hill Apartment Hotel Historic District. The building exemplifies multi-family residential development in Lower Nob Hill during the post-1906 Earthquake and Fire reconstruction period. ES-12 has a renaissance ornament detail with a brick and galvanized iron exterior. Like many buildings in the district, it has projecting bay windows, a fire escape in the front of the building, and a flat roof. ES-12 is bounded by Bush Street to the south, buildings to the east and west, and a backyard to the north. Several mature street trees line both side of Bush Street; however, none are located in front of ES-12.

The Nob Hill neighborhood is characterized by a mixture of hotel, institutional, and high-density residential uses. The Fairmount Hotel and Intercontinental Mark Jacobs Hotel, two grand and prominent San Francisco buildings, are located to the northeast. Grace Cathedral, the largest Gothic church in the west, and Huntington Park are located two blocks north of ES-12. The Lower Nob Hill Apartment Hotel District consists of mainly three- to seven-story multi-unit residential buildings that were constructed between 1906 and 1925, giving them a remarkable consistency in style. The neighborhood has many historic apartment buildings with lush, impressive façades, but also includes a mixture of modest apartment buildings. Neighborhood-serving retail operations are generally located on corner intersections.

The scale of the buildings on the subject block is fairly uniform and ranges from four to six stories. A majority of the buildings are residential with some neighborhood-serving retail services located on the ground floor. Buildings are adjoined and extend to the sidewalk, creating a continuous urban façade. Due to the urban character of the neighborhood, bordering roadways contain a high volume of traffic. The density of development and activity generates a considerable amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-12 has caused minimal changes to the building and neighborhood character. One sign with the AAU logo and lettering is located on the front of the building. The sign differs slightly with the visual character of the neighborhood, which is primarily residential with limited signage and advertising. However, several other small signs associated with retail operations are apparent on the subject block and such signage is common in vibrant, urban neighborhoods. No other exterior alterations indicative of AAU's use have ensued at the subject property. Therefore, no substantial effects to aesthetics have occurred from the change in use at ES-12.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

1080 Bush Street (ES-12) is a six-story, four-bay-wide brick- and stucco-clad building constructed in 1913 as the Ansonia Apartments. The building is T-shaped in plan and set flush to the sidewalk. It occupies a slightly sloped, rectangular lot, with the primary elevation facing Bush Street. (The north, east, and west elevations are visible only from the rear of the property.) Displaying Classical Revival decorative elements, the building has a symmetrical design composition and is capped with a flat roof. The roof line is marked by a stepped, brick-clad parapet, which terminates in shallow copping along the eave line.

On the ground story, the primary entrance is recessed via an entry portico, with floors and walls clad with marble and tile. The entrance is centered on the ground floor, flanked on each side by small paired rectangular windows and a single door. Defining the vertical axis on each side of the building are stacked tripartite bay windows, resting on molded recessed panels. Bay windows through the middle floors are topped with a molded stucco-clad band. Defining the building's three-part vertical design composition are projecting cornice lines, accented beneath with decorative modillions. This cornice detailing spans the façade between the first/second and fourth/fifth stories. The center bays consist of paired windows set within subtly arched brick headers. This arch motif is repeated across the ground story, in a series of window and door openings spanning the façade. The exterior walls exhibit decorative variations in brick patterning, including alternating rows of stretcher bond brick veneer punctuated with recessed rows of header bond. Arched window and door openings throughout the façade consist of header bond. Fenestration generally consists of single-pane, double-hung windows, as well as fixed and sliding windows. One original metal, paneled door is located on the first floor. Doors on the first floor and some windows feature segmental arched openings. Noncontributing metal security gates have been installed in front of the main entry and two of the first-story windows. The secondary elevations are only visible from small pathways constructed alongside the building leading to a small unbuilt area at the rear of the property. Similar to the primary elevation, the east and west elevations feature stacks of windows with molded recessed panels spanning from the second to the sixth story. Smaller, single windows with segmental arched openings are also present.

On the north (rear) elevation, each story displays a central single door with a pair of windows on either side. A metal staircase extends from the façade. Metal and aluminum sliders, awning, vinyl double-hung, and wood double-hung windows are present on the secondary elevations in a variety of configurations. Various styles of metal security gates have been added over the first story windows on the east and west elevations and all windows on the north elevation.

The main entry leads to a lobby with a small alcove immediately next to the main door for residents' mail boxes. As the lobby has been renovated since its original construction, the current finishes include laminate floors, sheetrock walls and ceiling, and recessed lighting. Visible under the fixed windows in the alcove is an area of exposed brick. An original Otis elevator is extant; however, the elevator doors have been replaced. The staircase from the lobby features a wood balustrade. The stairs and upper hallways have been carpeted and the doors replaced and trim replaced (for representative photographs refer to Photographs 66–68).

Photograph 66. 1080 Bush Street.

Photograph 67. 1080 Bush Street, detail of ground level.

Photograph 68. Interior hallway of subject property.

Site History

According to available sources, 1080 Bush Street was constructed in 1913/1914 for the Ansonia Apartments Company for a total estimated cost of $75,000. The architect was Maxwell G. Bugbee. Although the original building permit was not located for the property, a 1913 *San Francisco Chronicle* article provides information on the property at the time of its construction. According to the *San Francisco Chronicle* article, published 28 June 1913, "Among the best of the large modern apartment buildings now in course of construction in the City is the Ansonia Apartments, upon which work has been commenced."[478] In the Ansonia Apartment building, the article stated, "every modern convenience found in the best apartments will be furnished."

> A feature of the plan is that all rooms, including the bathrooms, will have outside sun and light, so much in demand in large apartment houses. A very large reception hall is provided, and also a basement entrance for tradesmen and service. The plan calls for 120 rooms, arranged in apartments of two, three, and four rooms each, with private halls and bathrooms.[479]

Although early photographs are not available, the 1913 illustration shows a basic window configuration of one-over-one double-hung windows through the two central bays. The two flanking rows of stacked bay windows appear to have had a similar configuration of single-light, double-hung panes. The only window feature that appears on the 1913 image that is no longer extant (assuming it was constructed) is a multi-light transom centered on each bay window. All windows appear to have been replaced with vinyl windows between 1989 and 1999.

California Register of Historical Resources Evaluation

1080 Bush Street (ES-12) is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District, and therefore is a historical resource under the California Environmental Quality Act (CEQA). In addition to being listed on the NRHP, 1080 Bush Street appears eligible for the California Register of Historic Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 Earthquake and Fire Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences. It is a distinctive example of Classical Revival architecture applied to a multi-family residence.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[480] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 1080 Bush Street retains integrity and remains CRHR-eligible. The subject property retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1913 to 1940.

Character-Defining Features Summary

Exterior

- Mid-rise, T-shaped plan, flush with sidewalk
- Symmetrical design composition

[478] San Francisco Chronicle, Apartment Building for the Ansonia Apartments Company, June 28, 1913.
[479] San Francisco Chronicle, 1913.
[480] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

- Flat root with no eaves; stepped parapet
- Stacked projecting bay windows, with molded recessed panels beneath and molded fascia and cornice above
- Projecting, tripartite cornice line capping bay windows
- Segmental arched window and door openings
- Brick construction
- Upper and lower cornices with modillions
- Vestibule with marble and tile features
- Original security door on ground level
- Original double-hung wood windows on secondary elevations
- Fire escape (south elevation)

Interior

- Spatial arrangement; double-loaded corridor
- Staircase and railings
- Original Otis elevator

<u>Secretary of the Interior's Standards Analysis</u>

This section presents a description and analysis of all known alterations completed by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

Illuminated Wall Sign: The project does not involve a change in use that resulted in significant changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Re-roofing: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Door Replacement: The project does not involve a change in use that resulted in significant changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 2. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. This subtle decorative element is a character-defining feature of the property. Given the spare nature of the ornamental detailing on the building and its symmetrical design composition, the sign obscures and interrupts the progression of arches, which line the ground story and mark each floor. The use of segmental brick arches across the ground story is a modest but important aesthetic detail. Further, the added sign spans the length of two window openings, which are also considered character defining.

Re-roofing: The project complies with Rehabilitation Standard No. 2. Located on a flat roof behind a raised parapet, the roofing material is not clearly visible from the street or other publicly accessible spaces and does not contribute to the historic character of the property. The replacement of this material therefore does not negatively affect the distinctive materials that characterize the property.

Door Replacement: The project does not comply with Rehabilitation Standard No. 2. Located on the primary elevation, the original doors contributed to the character of the overall property. Therefore, the project has not retained or preserved the character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 3. The wall sign introduces a feature that is not reflective or representative of the property’s historical use, significance, or appearance.

Re-roofing: The project complies with Rehabilitation Standard No. 3. The project does not introduce conjectural features or elements.

Door Replacement: The project does not comply with Rehabilitation Standard No. 3. The door introduces an element that is not consistent with the historic character of the property and which creates a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 5. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. These character-defining features represent distinctive materials and construction techniques and craftsmanship that characterize the property. Further, the project is likely to have resulted in damage to historic wall materials, through the removal or destruction of character-defining materials as part of the installation of the wall sign.

Re-roofing: The project complies with Rehabilitation Standard No. 5.

Door Replacement: The project does not comply with Rehabilitation Standard No. 5. Original doors are composed of materials, finishes, and construction techniques that characterize the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Door Replacement: The project does not comply with Rehabilitation No. 6. Rather than repair the original door or replace it in kind, the project introduced an element that is not consistent with the character of the property.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 9. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. Given the spare nature of the building's ornamental program and its symmetrical design, the brick header arches are an important design detail, accenting not just the ground story but each floor. In this way, the sign obscures and interrupts this character-defining feature. Further, the added sign spans the length of two window openings, which are also considered character defining.

Re-roofing: Located on a flat roof behind a raised parapet, the roofing material is not clearly visible and is not considered character defining; the project therefore complies with Rehabilitation Standard No. 9.

Door Replacement: The project does not comply with Rehabilitation Standard No. 9. Although the door is differentiated, it is not compatible with historic materials or features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Illuminated Wall Sign: The project complies with Rehabilitation Standard No. 10. The segmental brick arches are still present behind the sign; if the sign were removed, the essential form and integrity of this character-defining feature would remain intact.

Re-roofing: Because the project did not affect the essential form or integrity of the property, Rehabilitation Standard No. 10 is not applicable.

Door Replacement: The project complies with Rehabilitation Standard No. 10. The door opening was not affected by the project and the current door could be removed and replaced without any impairment to the building.

Conclusion

The following recommended Conditions of Approval are suggested to facilitate bringing the building at 1080 Bush Street (ES-12) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-12: HR-1, Signage. The illuminated wall sign shall be removed and the original physical appearance and materials of the segmental brick header arches replaced. Any perforations or damage to historic materials should be repaired and surfaces refinished to match existing materials and appearance. If a new sign is to be installed, it shall be placed in a location that does not obscure character-defining features and installed in a manner that results in minimal damage to historic architectural resources. In general, the recommended approach for installing signage is to use mortar joints or the jamb of a noncontributing building component (rather than character-defining masonry).

Recommended Condition of Approval, ES-12: HR-2, Door Removal. AAU indicates the western ground-level door was replaced due to damage in 2013. The replacement door installed by AAU is not consistent with the character of the other service door located at the eastern end of the ground level. To facilitate Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) compliance, the door shall be removed and replaced with a door that replicates the eastern ground-level door.

Archaeology and Paleontology

Building alterations at ES-12 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-12 is located on the north side of Bush Street between Jones and Leavenworth streets in the Nob Hill neighborhood. The approximately 24,528-square-foot, six-story structure was built as an apartment building in 1913 and was occupied by AAU in 1999. AAU currently uses the building for student housing, with 42 apartments and 15 rooms with a total of 122 beds.

There are three entries to the building along Bush Street, including one main entry and two secondary entries for access to the interior sidewalk. AAU reports and the Planning Department has observed that there is no bicycle parking provided on site. There is no AAU shuttle stop provided at this site. The nearest shuttle service is provided in front of the 860 Sutter Street (ES-13), approximately 670 feet to the south, served by seven shuttle routes (D, E, G, H, I, M and Sutter Express) in 2015.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use at this AAU site generates approximately 67 person trips (31 inbound trips and 36 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-12 is served by Pine Street, Bush Street, Jones Street, and Leavenworth Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown / Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The characteristics of Pine Street, Bush Street, and Leavenworth Street are discussed in detail above, under 1153 Bush Street (ES-11), and summarized here, along with a discussion of Jones Street, which runs east of the site. Transit and shuttle traffic are addressed below under the Transit and Shuttle subsections.

Pine Street is an east-west residential throughway that runs between Presidio Avenue and Montgomery Street. Pine Street operates as the westbound part of a one-way couplet with Bush Street providing eastbound travel (see the discussion under Traffic in 1153 Bush Street. ES-11). In the vicinity of ES-12, Pine Street has three westbound lanes and 2-hour time restricted parking on both sides of the street. The parking lane along the south curb converts into a vehicle travel lane during the PM peak period between 3:00 p.m. and 6:00 p.m., increasing the total number of travel lanes to four during this period. The *San Francisco General Plan* classifies Pine Street as a Major Arterial in the CMP Network. Pine Street is designated as a High Injury Corridor in the City's Vision Zero network.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. In the vicinity of ES-12, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City's Vision Zero network.

Leavenworth Street is a north-south downtown residential street that runs between Fisherman's Wharf and McAllister Street. In the vicinity of ES-12, Leavenworth Street has two northbound lanes and unmetered (2-hour time-limited) parking on both sides of the street. The *San Francisco General Plan* classifies Leavenworth Street as a Secondary Arterial in the CMP Network. Leavenworth Street south of Sutter Street is designated as a High Injury Corridor in the City's Vision Zero network. **Jones Street** is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Jones Street has three southbound lanes and metered parking on both sides of the street.

The AAU student housing use at ES-12 along with nearby AAU student housing uses at 1153 Bush (ES-11) Street, 860 Sutter Street (ES-13), 817-831 Sutter Street (ES-14), 1055 Pine Street (ES-17), and 620 Sutter Street (ES-20) are not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles. Even in combination with the 24 PM peak hour vehicle trips generated by the postsecondary educational institutional uses at 491 Post Street (ES-23) and a residential amenity at 1069 Pine Street (ES-16), traffic operating conditions in the vicinity have not been substantially altered by student housing uses at this AAU site or other AAU uses at nearby sites.

Transit

The AAU student housing use at ES-12 generates approximately three transit trips during the weekday PM peak hour including two trips in the inbound direction and one trip in the outbound direction. The low number of transit trips is primarily due to residential students utilizing AAU shuttles, including on weekends. Similar to 1153 Bush Street (ES-11), ES-12 is generally served by Muni bus routes 2-Clement, 3-Jackson, and 27-Bryant. These routes provide further connections to Muni rail service on Market Street. The nearest bus stop to ES-12 is located at the Bush Street/Leavenworth Street intersection for the 27-Bryant line, and it includes a shelter and signage with transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). The AM, midday, and PM frequencies of these lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour are presented in Table 64. Information about other bus routes in the vicinity, most of which do not have bus stops near ES-12, is provided in Table 60 above in the discussion of 1153 Bush Street, ES-11.

Table 64. 1080 Bush Street (ES-12) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/ 8th	46%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The AAU student housing use at ES-12 generate three PM peak hour transit trips. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased demand, even in combination with the 130 transit trips from other nearby AAU sites (1153 Bush Street [ES-11], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit service in the area. There is no shuttle stop provided at this site, thus the operation of the AAU shuttle service does not substantially conflict with the operation of transit vehicles.

Shuttle

The AAU student housing use at ES-12 generates approximately 39 shuttle riders during the PM peak hour including 18 riders in the inbound direction and 21 riders in the outbound direction. AAU shuttle Routes D, M, G, H, and Sutter Express currently run adjacent to the site on Bush Street, but no shuttle stop is provided at ES-12. Instead, students walk approximately 670 feet to the shuttle zone located in front of 860 Sutter Street (ES-13) to catch AAU shuttle bus routes (D, E, G, H, I, M and Sutter Express). Shuttle passengers likely walk to the shuttle stop at 860 Sutter Street (ES-13) via Leavenworth and Sutter streets. This shuttle stop was served by five shuttle bus routes (D, H, I, Q and R) in 2010. Route D operated every 20 minutes, Routes H and I each operated every 15 minutes, and Routes Q and R each operated every 30 minutes throughout the day. The total seating capacity for these five routes was 728 seats in the PM peak hour. Routes D, H, I, Q and R operated at 30, 63, 78, 29 and 18 percent capacity at the MLP, respectively, in 2010. During the shuttle peak hour, Routes D, H, I, Q and R operated at 64, 126, 130, 96 and 55 percent capacity, respectively at the MLP, with two routes (H and I) operating above the total seating capacity. MLPs occur at 860 Sutter Street on Route D, at 466 Townsend Street and on Route H, at 79 New Montgomery on Route I, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. As of spring 2015, six regular and one express shuttle bus routes (D, E, G, H, I, M and Sutter Express) serve this stop. These routes operate with a total seating capacity of 505 in the PM peak hour, a 30 percent reduction in service.

A recommended Condition of Approval is suggested under 860 Sutter Street (ES-13) that would relocate the shuttle stop to 491 Post Street or an alternate location during the PM peak period.

Pedestrian

The AAU student housing use at ES-12 generates approximately 64 pedestrian trips, including 23 walking, three transit and 38 shuttle trips during the PM peak hour. Bush, Hyde, and Sutter streets are designated as High Injury Corridors under the City’s Vision Zero Improvement Plan. Intersections near this AAU residential site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Bush Street/Leavenworth Street and Bush Street/Jones Street intersections have pedestrian crossing signal heads. Sidewalks along Leavenworth Street, Bush Street, and Jones Street are approximately 13, 10, and 12 feet wide, respectively. There is no curb cut bordering the site. The primary pedestrian access to the site is from Bush Street through the gated doorway. Two secondary entries are provided along Bush Street for direct access to the interior sidewalk.

Pedestrian volumes were observed to be generally low to moderate in the vicinity of this site and pedestrians were observed to move freely in the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of the AAU site. Observations also noted no instances of pedestrian-vehicle conflicts at crosswalk locations.[481] The 64 pedestrian trips at ES-12, in combination with 654 pedestrian trips from nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), add pedestrian volumes in the area, but given

[481] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.

that these are generated from eight different AAU sites, the ES-12 pedestrian trips and additional pedestrian trips are accommodated on the adjacent pedestrian facilities (10-foot-wide sidewalks along Bush Street).

Bicycle

The student housing use at ES-12 generates three bicycle trips including one trip in inbound and two trips in outbound direction during the PM peak hour. Bush Street is not a designated bicycle route. The nearest designated route, Route 16, is located on Sutter and Post streets. AAU reports there is no bicycle parking provided on site. The nearest Class II public bicycle racks are located across the street along the south side of Bush Street west of Jones Street. The site's three PM peak hour bicycle trips, even in combination with 23 PM peak hour bicycle trips from nearby AAU sites (i.e., 1153 Bush Street [ES-11], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], 620 Sutter Street [ES-20], and 491 Post Street [ES-23]), have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand of approximately nine spaces.[482] Pursuant to Planning Code Section 155.2, the 122-bed student housing use at ES-12 is required to provide 9 Class I bicycle parking spaces.[483] Therefore, a Condition of Approval related to additional bicycle parking is recommended below.

Loading

The AAU student housing use at ES-12 generates approximately one daily truck trip. This site does not have any off-street loading spaces. There is approximately 40 feet of on-street freight loading (yellow) space along the north side Bush Street west of Jones Street, approximately 300 feet east of the AAU site. The on-street yellow zone accommodates up to two van- or pickup-size vehicles or a medium-size truck.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and the existing yellow freight loading zone was occupied most of the time during the observation period due to general commercial loading activities associated with retail uses in the area. As discussed below, on-street parking spaces in the vicinity of this AAU site experiences moderate to high (73 to 81 percent) parking utilization during the midday period, and any delivery vehicles are required to find available parking, which could be more than one block away. Due to the low daily delivery activity related to the AAU student housing use at ES-12 during the weekday midday period as noted during site visit, loading demand could be accommodated in areas near this AAU site, and is not considered a substantial change to the loading activities in the vicinity.

Garbage collection at this site occurs on the north side of Bush Street, next to the entrance for the site. Trash receptacles are pulled from the interior sidewalk through a secondary entrance on Bush

[482] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[483] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. Student housing shall provide 50 percent more spaces than would otherwise be required.

Street and are placed along the sidewalk at designated areas. Garbage collection for this site occurs every day in the early morning hours.

Parking

The AAU student housing use at ES-12 is not expected to generate a substantial amount of parking demand throughout the day because students are not permitted to park private vehicles at residential sites and AAU discourages students from bringing private vehicles into San Francisco.[484] The site does not provide any off-street parking spaces. Although the site has not resulted in an increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. As presented in Table 60 above, under the 1153 Bush Street (ES-11) discussion, on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east and Post Street to the south was observed to be moderate to high, averaging about 86 percent during the midday period. Parking occupancy in the immediate vicinity of this AAU site was 73 to 81 percent along Bush Street between Leavenworth and Jones Streets. The student housing use at this AAU site is not expected to have substantially altered parking conditions in the area.

Emergency Vehicle Access

San Francisco Fire Department Station #3 (1067 Post Street) is the closest station to the AAU site, approximately 0.4 mile west of the site. From the station, vehicles are able to access the AAU site via Polk and Bush streets and would be able to park along Bush Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of the 1080 Bush Street site include a lack of bicycle parking available at the site. To address this constraint, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-12: TR-1, Class I Bicycle Parking. AAU shall add 9 Class I bicycle parking spaces or in consultation with SFMTA shall add 9 Class II bicycle parking spaces along Bush Street. As an alternative, AAU may propose Bay Area Bike Share. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

<u>Noise</u>

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 1080 Bush Street (ES-12) is located on the north side of Bush Street between Jones and Leavenworth streets in the Nob Hill area. This AAU building has student housing with 42

[484] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed April 20, 2016.

residential units and 122 beds. There is no AAU shuttle stop provided at this site. In 2010, students catch shuttle buses on routes D, H, I, Q, and R along the frontage of the 860 Sutter Street site (ES-13), approximately 670 feet of walking distance from ES-12. As of 2015, AAU shuttle routes that serves ES-4 include D, E, G, H, I, M and Sutter Express. No vehicle trips are generated by ES-12; students use the AAU shuttle system, bicycles, and public transit.[485] According to the San Francisco Transportation Noise Map,[486] the existing noise level near ES-12 from traffic along Bush Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Bush Street currently exceed the "satisfactory" level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-12. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-12 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-12 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-12.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-12 residential building may be subjected to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels above 70 dBA L_{dn}, more insulation than is typically provided with conventional construction may be needed. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions is found under the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-12, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been occupied in 1999, when the AAU occupied the building. Area sources were estimated based on a 122 "dwelling

[485] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
[486] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

unit" "Mid-Rise Apartments" land use designation in CalEEMod, to be conservative, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is a heater boiler at ES-12. However, this boiler was installed prior to AAU occupation of ES-12 and was not included in the air quality analysis. There is an on-site heating steam boiler and a domestic hot water boiler at ES-12. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-12. Table 65 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-12, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

Table 65. 1080 Bush Street (ES-12) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.92	2.39	0.36	0.36	0.31	0.43	0.07	0.07
Energy	<0.01	0.07	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	1.93	2.47	0.37	0.37	0.31	0.45	0.07	0.07
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.
ROG = reactive organic gases; Nox = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-12 is not one of those sites; therefore, AAU occupation of ES-12 has not resulted in increased health risks for nearby sensitive receptors and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-12 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-12 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-12: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 through 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-12 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-12.

Recreation

As shown on Figure 4, p. 3-63, 1080 Bush Street (ES-12) is located within 0.25 mile of one San Francisco Recreation and Park Department (RPD) park: Collis P. Huntington Park. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[487] Other publicly owned parks are within a 0.5-mile distance of ES-12, including Tenderloin Recreation Center, Chinese Recreation Center, and Union Square.

[487] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.

As described in Population and Housing on p. 4-306, the capacity of ES-12 is 122 beds. The change in use from residential to student housing (group housing for a postsecondary educational institutional) at ES-12 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Huntington Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-12 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous residential land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[488] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-12. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[489] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject

[488] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.
[489] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-12 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[490] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[491] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-12 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[492] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

1080 Bush Street has a capacity of 122 beds (42 apartments and 15 group-housing rooms). The change in use from residential to student housing (group housing for a postsecondary educational institution) within an RM-4 Zoning District would likely represent a slight change in the population of the area, as the population density of student housing is likely more than the previous residential building. However, the change would not be substantial because the student housing capacity is limited by the space in the building (42 apartments). Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-12.

---

[490] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[491] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[492] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Fire and Emergency Services

ES-12 is located within 1,700 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[493] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[494]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-12 meet the Citywide emergency transport goals.

As described above on p. 4-306, the change in use from residential to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-12.

Libraries

The nearest public library to ES-12 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-306, the change in use from residential to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-12.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

---

[493] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[494] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

The previous use as a residential building could have contributed to the school-aged population of nearby schools. Presumably the change in use to student housing (group housing for a postsecondary educational institution) would reduce the school-aged population of nearby schools, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[495] The reduction in the school-aged population, if any, would be minimal. For the reasons stated above, no effect on schools has occurred as a result of the change in use at ES-12.

Biological Resources

ES-12 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-12. ES-12 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-12.

Geology and Soils

ES-12 is underlain by a variable thickness of artificial fill that overlays well-sorted, fine- to medium-grained dune sands. The dune sands of San Francisco once formed an extensive coastal system, underlying about one-third of the City. The dune sand is typically highly permeable and overlays bedrock. At the property and immediate vicinity, on top of the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is approximately 16 to 36 feet below ground surface and flows south and southeast, corresponding to surface topography.[496] Because building alterations undertaken by AAU were primarily interior and limited to minor exterior modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-12 would be very strong during a 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[497,498] ES-12 is not located within a liquefaction zone.[499] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in

[495] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.
[496] Geologica, Inc., Phase I Environmental Site Assessment for 1080 Bush Street, March 2003.
[497] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[498] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[499] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-12 is a brick building that underwent seismic upgrading in 1998 by a previous owner.[500] Although the building could remain vulnerable during an earthquake, the building alterations completed after the change in use to student housing (group housing for a postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-12 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, remodeling and renovating apartments, and re-roofing). Regardless, wastewater and stormwater associated with the change in use at ES-12 and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-12 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[501] ES-12 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-12.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-12 did not identify the presence of underground storage tanks (USTs) or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes.[502] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1913, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent

[500] Permit #9816291 (Seismic upgrades, UMB).
[501] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[502] Geologica, Inc., Phase I Environmental Site Assessment for 1080 Bush Street, March 2003.

lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[503] Asbestos was removed from the building in accordance with state and federal laws and regulations in 2012.[504] Therefore, effects from these hazardous materials would have been negligible.

ES-12 is a student housing building with a manager's office, laundry room, and recreation room. Hazardous materials that are used, stored, and disposed of at ES-12 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-12.

Tenant improvements at ES-12 associated with the conversion of apartment space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-322 – 4-323. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[505] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-12, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at nearby 860 Sutter Street (ES-13). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-12 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-12 has not had a substantial effect on mineral and energy resources.

[503] Geologica, Inc., Phase I Environmental Site Assessment for 1080 Bush Street, March 2003.
[504] Bluewater Environmental Services, Uniform Hazardous Waste Manifest, EPA Form 8700-22, January 25, 2012.
[505] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1080 Bush Street, March 4, 2016.

Agricultural and Forest Resources

ES-12 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[506] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-12 has had no substantial effects on agriculture or forest resources.

[506] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.12. 860 Sutter Street (ES-13)

Property Information

The 860 Sutter Street existing site (ES-13) site is a 35,292-square-foot, six-story building located on Sutter Street between Jones and Leavenworth streets, in the Downtown/Civic Center neighborhood (Photographs 69–72). Figure 11, ES-13 and ES-14: 860 and 817-831 Sutter St – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The site is Lot 006 in Assessor's Block 0281. The 89 group-housing rooms in the residential building have a capacity of approximately 184 beds.

Prior to Academy of Art University (AAU) occupation in 2003, 860 Sutter Street was used as an 89-room tourist and residential hotel then known as Beresford Manor, with 50 group-housing rooms (residential hotel rooms pursuant to the Residential Hotel Conversion Ordinance) and 39 tourist hotel rooms. AAU converted the property in 2003 to student housing (group housing for a postsecondary educational institution) and refers to ES-13 as the "International House." Two permanent residents (nonstudents) currently occupy two of the rooms. Common areas include a recreation room, a manager's office, a laundry room, and a café.[507] This site includes a 47-foot-long shuttle stop along its frontage on Sutter Street that serves seven shuttle routes (D, E, G, H, I, M, and Sutter Express).

The site is in an RC-4 (Residential – Commercial – Combined, High-Density) Zoning District, which allows high-density residential uses, senior housing, group housing including single-room occupancy and student housing, retail uses on the first and second floors only, institutional uses and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. The height and bulk district on either side of Sutter Street near ES-13 is 80-A.

Tenant Improvements and Renovations

AAU has made exterior tenant improvements to 860 Sutter Street since it occupied the building in 2003, including installing handrails at the primary entrance (south façade) of the building in 2006, re-roofing and replacing existing windows in 2010, installing security cameras with exterior wiring attached to the south façade of the building, removing a wall sign and signage from the canopy in 2013, installing a fire suppression system in the kitchen in 2014. The signs were installed without permits; all signage was removed in 2011 and 2013.[508] AAU replaced the canvas on the canopy, and windows on the second through fifth floor, without building permits.[509]

Required Project Approvals

The change in use from a residential (50 rooms) and tourist hotel (39 rooms) to student housing (group housing for a postsecondary educational institution) will require a CU authorization under San Francisco Planning Code (Planning Code) Sections 209.3 and 303; conversion of the 50

[507] *2011 IMP*, p. 100.
[508] Building Permits obtained for the improvements and renovations at ES-13 are: BPA #201401216709 (fire suppression system), #201301248683 (wall and canopy sign removal), #201009130696 (replace windows, permit never issued), #201008108454 (reroofing), and #200607287952 (install handrails).
[509] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 69. 860 Sutter Street (ES-13).

Photograph 70. Mid-block Sutter Street, facing southeast, toward 817–831 Sutter Street (ES-14).

Photograph 71. Mid-block Sutter Street, facing northwest.

Photograph 72. Passengers boarding shuttle at 860 Sutter Street.

residential hotel rooms to student housing (group housing for a postsecondary educational institution) will require a legislative amendment to Planning Code Section 317(f)(1), the Student Housing Legislation, to allow for conversion of residential units to student housing; and the change in use will require a building permit under Planning Code Section 171. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

Plans and Policies and Land Use

ES-13 is located in the Downtown/Civic Center neighborhood. In the immediate vicinity of ES-13 is a mixture of uses including commercial, residential, and institution (church). Although there are a mixture of uses, the block is predominantly characterized by multi-family apartments with some supporting ground-floor commercial uses. AAU occupies one other building on the block at 817–831 Sutter Street (ES-14), across the street and east of ES-13. The surrounding buildings on the subject block range from one to six stories. A nine-story residential building is currently under construction directly across the street from ES-13. The ES-13 building was built in 1913, is six stories, and was originally known as the Reich Hotel Building.

Sutter Street is a three-lane, one-way westbound street with one dedicated bus-only lane. Metered parking is permitted on both sides of Sutter Street with interspersed freight and passenger loading zones and a bus stop at the northwest corner of Sutter and Mason streets. Parking is also located at a parking structure mid-block on the north side of Sutter Street.

ES-13 is located in the Lower Nob Hill Apartment Hotel National Register Historic District, which has a high concentration of residential and ground-floor retail/commercial uses. The Lower Nob Hill Apartment Hotel District consists of mainly three- to seven-story multi-unit residential buildings that were constructed between 1906 and 1925, giving them a remarkable consistency in style. ES-13 is constructed with gothic revival details, was originally used as a residential hotel, and is a contributing resource to the Lower Nob Hill Apartment Hotel District.

The zoning near ES-13 is RC-4 (Residential – Commercial – Combined, High-Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses. ES-13 is not located in a Special Use District. The height and bulk district on either side of Sutter Street near ES-13 is 80-A.

As noted above, use of ES-13 has been changed by AAU from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) use with a recreation room and a café. The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. The change in use of the site from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) is compatible with the primarily residential use in the RC-4 Zoning District. However, the change in use would intensify AAU's presence in the vicinity, as two AAU buildings are located on the same street (817–831 Sutter Street). Four other AAU buildings are located two blocks to the east at 620, 625, 655, and 680 Sutter Street. Another AAU building is located at 740 Taylor Street, around the corner from the buildings in the 600 block of Sutter Street. The intensification of AAU uses in the vicinity could change the character of the neighborhood and introduce new patterns of use at the site (i.e., student populations would replace hotel guests and/or longer-term residents). The change in use would not be incompatible with existing uses in the vicinity, as group housing is typical of the urban area in which ES-13 is located.

The change in use of the site from residential to student housing (group housing for a postsecondary educational institution) would conflict with the Planning Code because it would require a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

ES-13 would also require a building permit pursuant to Planning Code Section 171 and a legislative amendment to Planning Code Section 317(f)(1), Student Housing Legislation, because the change in use would convert residential units to student housing. Therefore the ES-13 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-13 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-13 is 184 beds (89 group-housing rooms). The change in use from a tourist hotel and group housing to student housing (group housing for a postsecondary educational institution) would have minimally changed the daytime population of the building because the previous use, as a tourist and residential hotel, would have had a comparable capacity. However, student residents denote a more permanent change to population compared to tourists, or even residential hotel tenants that typically reside for short periods of time (e.g., 1 week).[510] It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-13 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[511]

Given the close proximity of other AAU student housing locations at 620, 655, 680, and 817–831 Sutter Street, the neighborhood population of AAU students is relatively high (approximately 768 student residents) on Sutter Street, between Leavenworth and Mason streets. An AAU building with classrooms and labs/studios is also located at 625 Sutter Street. The student population would be typical of a vibrant urban neighborhood with a mixture of populations and uses.

---

[510] Fribourg, Aimee. *San Francisco's Single-Room Occupancy (SRO) Hotels: A Strategic Assessment of Residents and Their Human Service Needs: A Study Conducted for the San Francisco Human Services Agency (SF-HSA), San Francisco, California,* p. 33, *Spring 2009.* Available online at http://www.sfhsa.org/asset/reportsdataresources/sfsrohotelsanalysis.pdf. Accessed on November 10, 2015.

[511] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[512] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[513] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-13.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-13 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

The change in use at ES-13 from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-13 could have resulted in displacement of people and existing housing units; however, the previous use as 50 group-housing rooms would not establish the need to construct replacement housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. ES-13 provides 184 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of group-housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or single-room occupancy (SRO) to student housing is considered a conversion of a residential unit. Planning Code Section 317 (f)(1) prohibits the conversion of a residential unit to student housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-13 is located in the Downtown/Civic Center neighborhood and is one block south of the Nob Hill neighborhood. This part of the Downtown/Civic Center neighborhood is often called "Lower Nob Hill." The building is eight narrow bays wide with an elaborate steel parapet with keyhole openings at the top of the building. The building is a unique example of a Gothic Revival-designed hotel in Lower Nob Hill and is a contributor to the Lower Nob Hill Apartment Hotel National Register Historic District. It has a decorative main entry with marble steps and glass and wood doors.

[512] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.
[513] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

The Lower Nob Hill Apartment Hotel National Register Historic District has a high concentration of residential and ground-floor retail/commercial uses. The historic district consists mainly of three- to seven-story multi-unit residential buildings that were constructed between 1906 and 1925, giving them a remarkable consistency in style. Most buildings have visible fire escapes in the front of the building.

The topography is sloped down toward the Financial District and Bay to the east, and sloped up toward the top of Nob Hill to the north. Due to the urban character of the neighborhood, adjacent and nearby streets contain a high volume of traffic at almost all times of the day and week. The density of development and activity generates a substantial amount of pedestrian and vehicular traffic that adds to the visual character of the area.

The surrounding area contains mainly mid-rise buildings encompassing residential functions. The architecture on the subject block is very similar and consists of historic apartment buildings that are part of the larger Lower Nob Hill Apartment Hotel National Register Historic District. In general, buildings extend to the sidewalk and are similar in size and scale. Some buildings have ground-floor retail, whereas others are solely residential use throughout.

The change in use at ES-13 has caused no substantial visual changes to the building or neighborhood. AAU signage that was previously on the canopy has been removed. AAU replaced the upper story windows, changing the historic integrity of the building, as discussed in the Historical Architectural Resources section below, but these alterations did not result in major aesthetic changes to the building in its neighborhood context. The added security cameras and upgraded exterior lighting are the only alterations that are indicative of AAU use. Therefore, no substantial changes to aesthetics have occurred from the change in use.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The mid-rise building at 860 Sutter Street (ES-13) was constructed in 1913 as a hotel. The building has a T-shape plan and is set flush to the sidewalk on a rectangular, sloped lot. Constructed in the Gothic Revival style, it features a symmetrical design and a bipartite façade composed of an articulated ground floor and upper stories. The six-story building is capped with a flat roof and an elaborate projecting steel cornice and parapet accented by keyhole openings and octagonal sheet metal columns with finials. A recessed decorative entryway with wood doors featuring Gothic glass details and marble stairs is located in the western corner of the primary elevation and provides access to the interior. Rectangular and rounded windows with articulated ornamental surrounds are located on the first story with recessed square and rectangular windows below providing light to the basement. A short, secondary door is located on the eastern side of the elevation and leads to a walkway along the eastern side of the lot. Above the first floor the fenestration pattern consists of narrow vertical bays with rectangular and arched upper windows recessed in the wall plane and paneled spandrels. Vertical piers separate the rows of upper-level windows with window types including wood and replacement vinyl double-hung windows and fixed glass windows. A central fire escape is located on the primary elevation.

Secondary elevations are visible on the east from a narrow walkway and on the north from a small open area located between the adjacent buildings. On the ground floor of the eastern elevation is the kitchen, visible through large rectangular windows and accessed through multiple single doors. Above the ground floor, the fenestration pattern established on the primary elevation continues on the eastern elevation. On the north elevation, horizontal bands of evenly spaced windows are located on the upper stories. A second fire escape is centered on the north elevation. Horizontal seismic bracing supports join the north elevation of the structure to the rear wall on the property. Board from concrete is visible on the north elevation. There are awning windows on the first floor of the eastern elevation and horizontal bands of vinyl double-hung windows on upper stories of the east and north elevations.

The main entry leads to a lobby featuring decorative wainscot, metal radiators, wood flooring, and light fixtures. The lobby opens to an elevator with porthole-style elevator doors, a communal space, and hallways leading toward the residential areas. Original paneled wood doors and trim and transoms windows or panels are featured throughout the interior spaces. The basement has an open plan dining area that features decorative columns, trim, and wainscoting (for representative photographs refer to Photographs 73–75).

Photograph 73. 860 Sutter Street.

Photograph 74. 860 Sutter Street, close up of the upper story windows and projecting parapet on the primary elevation.

Photograph 75. Interior lobby of subject property.

Site History

Gustave Albert Lansburgh designed the hotel at 860 Sutter Street in 1913 for A. Eisenberg. According to the *San Francisco Chronicle* article, published 20 December 1913:

> The hotel will be equipped with all modern conveniences and it will have a dining-room, kitchen, parlor and reception hall. When completed it will represent an investment of between $75,000 and $80,000. The front design is in Gothic and treated in cement and metal. G. Albert Lansburgh, the architect, expects to have the building finished within the next four months. He has planned a high interior finish, as the hotel is intended for a high class of tenants.[514]

[514] San Francisco Chronicle, Contracts Let for Three Hotels, December 20, 1913.

Born in Panama, Lansburgh (1876–1969) migrated to San Francisco with his family as a child. He studied at University of California, Berkeley under Julia Morgan and Bernard Maybeck. Lansburgh worked under Maybeck and Julius E. Drafft before leaving to study at the *École des Beaux-Arts* in Paris.[515] After returning to San Francisco in 1906, Lansburgh partnered with Bernard Julius Joseph for 2 years before opening his own office. Lansburg designed a number of houses in San Francisco, however he became known as a theater and stadium architect. Notable projects include 2201 Broadway (residence, 1914), 982 Market Street (The Warfield, 1921–1922), 1 Taylor Street (Golden Gate Theater, 1922) and 3052 Pacific Avenue (residence, 1924).

Adolph Eisenberg, a wholesale jeweler, owned A. Eisenberg and Co with his son, Alfred (d. 1918).[516] Upon Eisenberg's death in early 1926, the hotel was transferred to his granddaughter, Margot Eisenberg, as part of an estate settlement. Margot Eisenberg retained ownership of the hotel through 1957. By 1973 Henry Davis was listed as the owner.

According to building permits, ownership of the property changed several times during the 1980s. In 1984, Sutter Street Partners was listed as the owner and Hotel Beyes Ford Manor in 1987. As of 1989, the Beresford Corporation owned the hotel and retained ownership until AAU occupied the hotel in 2003.

California Register of Historical Resources Evaluation

860 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District, and therefore is a historical resource under the California Environmental Quality Act (CEQA).

In addition to being listed on the NRHP, 860 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential/hotel development in the Nob Hill neighborhood during the post-1906 Earthquake and Fire Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as a distinctive example of a multi-family residential/hotel building with unique Gothic Revival-style details in the Nob Hill neighborhood.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[517] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

[515] David Parry, "Gustave Albert Lansburgh, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2001.
[516] Crocker Langley San Francisco Directory, 1911; "9-Year-Old Girl Given Big Estate," *San Francisco Chronicle*, 3 February 1926.
[517] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

860 Sutter Street retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1913 to 1940, with the end date corresponding with end of the historic district's period of significance.

Character-Defining Features Summary

Exterior

- Scale and massing: mid-rise, T-shaped plan, flush with sidewalk
- Flat roof
- Elaborate projecting steel parapet with keyhole openings, and octagonal sheet metal columns with pinnacles at top
- Three-part vertical design composition, with distinctive stylistic treatments for ground, middle, and upper stories
- Fenestration pattern consisting of narrow vertical bays with arched upper windows and paneled spandrels
- Vertical piers separating rows of upper-level windows
- Articulated ornamental window surrounds on first floor
- Original wood frame and sash single-hung windows on ground floor and upper stories
- Decorative entryway with glass and wood doors and marble steps
- Fire escape (south and north elevations)

Interior

- Spatial arrangement and circulation; double-loaded corridors
- Staircase and curved step and railings
- Main lobby, communal space, and associated decorative features (including wainscot)
- Original paneled wood doors and trim, some with transoms
- Original porthole-style elevator doors
- Applied ornamental features, including on ceilings, walls, floors, and light features
- Wood floor in lobby
- Metal radiators in lobby
- Open-plan basement-level room (originally appears to have served as a cafeteria), with decorative columns, trim, and wainscoting

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations completed by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Awning Cover: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not obscure or damage distinctive character-defining features.

Awning Cover: The project complies with Rehabilitation Standard No. 2. The current steel-tube frame for the awning was installed in 1987 by a previous occupant (Permit 871344); this replaced an earlier awning cover. Although the decorative entryway is considered character defining, the ornament is within the recessed space and does not extend to the surrounds. Therefore, the current awning cover does not obscure character-defining features.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that original windows featured wood frames. These original windows were removed and replaced with new windows that differ in appearance and materials.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Awning Cover: Rehabilitation Standard No. 3 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the original windows on the primary and secondary elevations were wood frame.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Awning Cover: The project complies with Rehabilitation Standard No. 5. The previous awning cover that the current project replaced was installed after 1987 and was not considered character defining.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original windows, which were examples of the distinctive materials, features, and craftsmanship that characterized the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. Rather than retaining and repairing character-defining windows, the original windows were removed and replaced with vinyl windows.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Awning Cover: The project complies with Rehabilitation Standard No. 9. The project replaced a non-character-feature and does not obscure character-defining features.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs indicate that the original windows on the primary and secondary elevations were wood-framed windows. The project involved the removal of original windows, which were examples of the distinctive materials and craftsmanship that characterized the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Awning Cover: The project complies with Rehabilitation Standard No. 10. The awning covers and framing they sheath could be removed at a future date with no impairment to the building.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the vinyl windows.

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 860 Sutter Street (ES-13) into compliance with the Secretary of the Interior's Standards.

Recommended Condition of Approval, ES-13: HR-1, Remove and Replace Vinyl Windows. Non-original vinyl windows shall be removed using the gentlest means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.

Archaeology and Paleontology

Building alterations at ES-13 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-13 is located on the north side of Sutter Street, approximately mid-block between Jones and Leavenworth streets in the Lower Nob Hill area. The last registered use in the approximate 35,292-square-foot, six-story building, built in 1913, was an 89-room tourist and residential hotel. Since 2003, AAU has used the space for student housing with 89 group-housing rooms and a total of 184 beds.

No vehicle or bicycle parking is provided on-site. There are two entries to the building along Sutter Street, including one main entry and one secondary entry for direct access to the interior sidewalk. There is a 47-foot-long white zone along the frontage of this site, which is used as a shuttle stop currently serving seven shuttle bus routes (D, E, G, H, I, M, and Sutter Express). This zone also serves nearby AAU residential buildings such as 1153 Bush Street (ES-11), 1080 Bush Street (ES-12), 817-831 Sutter Street (ES-14), and 1055 Pine Street (ES-16).

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use at ES-13 generates approximately 103 person trips (48 inbound trips and 55 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-13 is served by Sutter Street, Post Street, Bush Street, Leavenworth Street, and Jones Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street

[ES-23]). These roadways are discussed in more detail under 1053 Bush Street (ES-11) and 1080 Bush Street (ES-12). The characteristics of the streets immediately adjacent to ES-13 are summarized here. Transit and shuttle traffic is further addressed below under the Transit and Shuttle sections.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. It is the eastbound direction of a one-way couplet with Pine Street. In the vicinity of this AAU site, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City's Vision Zero network.

Leavenworth Street is a north-south downtown residential street that runs between Fisherman's Wharf and McAllister Street. In the vicinity of this AAU site, Leavenworth Street has two northbound lanes and unmetered (2-hour time-limited) parking on both sides of the street. The *San Francisco General Plan* classifies Leavenworth Street as a Secondary Arterial in the CMP Network. Leavenworth Street south of Sutter Street is designated as a High Injury Corridor in the City's Vision Zero network.

Jones Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Jones Street has three southbound lanes and metered parking on both sides of the street.

Sutter Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Battery Street. In the vicinity of the AAU sites, Sutter Street has two westbound vehicle lanes, a westbound transit-only lane and metered parking on both sides of the street. The parking lane along the north side of the street converts into a travel lane during the PM peak period between 4:00 p.m. and 6:00 pm., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Sutter Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Sutter Street is designated as a High Injury Corridor in the City's Vision Zero network.

Post Street is an east-west downtown residential street that runs between Presidio Avenue and Market Street. In the vicinity of this AAU site, Post Street has two eastbound vehicle lanes, one transit-only lane, and metered parking on both sides of the street. The *San Francisco General Plan* classifies Post Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Post Street is designated as a High Injury Corridor in the City's Vision Zero network.

The AAU student housing use at ES-13 along with nearby AAU student housing uses at 1153 Bush Street (ES-11), 1080 Bush Street (ES-12), 817-831 Sutter Street (ES-14), 1055 Pine Street (ES-17), and 620 Sutter Street (ES-20) are not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles. Even in combination with the 24 PM peak vehicle trips generated by the postsecondary educational institutional uses at 491 Post Street (ES-23) and a residential amenity at 1069 Pine Street (ES-16), traffic operating conditions in the vicinity have not been substantially altered by student housing uses at this site or other nearby AAU uses.

Transit

The AAU student housing use at ES-13 generates approximately five transit trips during the PM peak hour, with two trips in the inbound direction and three trips in the outbound direction. The low number of transit trips is primarily due to resident students utilizing AAU shuttles, including on weekends. Similar to 1153 Bush Street (ES-11), the 860 Sutter Street site is generally served by Muni bus lines 2-Clement, 3-Jackson, and 27-Bryant. These routes provide further connections to Muni rail service on Market Street. The nearest bus stop to ES-13 is located at the Sutter Street/Leavenworth Street intersection for all three lines, and it includes a shelter and signage with transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). Route 76X-Marin Headlands Express runs along Sutter Street on Sundays and holidays only, and stops at the Mason Street/Sutter Street intersection. The AM, midday, and PM frequencies of these lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour are presented in Table 66 below.

Table 66. 860 Sutter Street (ES-13)– Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/ 8th	46%
76X – Marin Headlands Express	Market and Sansome to 1st St and Mitchell via Golden Gate Bridge, Lombard, Sutter, and Post	N/A	60 (Sundays and Holidays Only)	60 (Sundays and Holidays Only)	N/A	N/A	N/A

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The AAU student housing use at ES-13 generate five PM peak hour transit trips. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased demand, even in combination with the 128 transit trips from other nearby sites under analysis (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit ridership in the area. Based on the location of the shuttle zone in a tow-away zone (from 4:00 p.m. and 6:00 p.m.) adjacent to a transit-only lane, AAU shuttle service to the site potentially conflicts with the operation of transit vehicles along Sutter Street. Therefore, a recommended Condition of Approval related to relocation of the shuttle stop is recommended below under Existing Constraints and Proposed Conditions of Approval.

Shuttle

The AAU student housing use at ES-13 generates approximately 59 shuttle riders during the PM peak hour including 27 riders in the inbound direction and 32 riders in the outbound direction. This site includes a 47-foot-long shuttle stop along its frontage on Sutter Street, and seven shuttle routes (D, E, G, H, I, M, and Sutter Express) currently run adjacent to the site and stop at this shuttle zone at a combined frequency of every 3.5 minutes (see Table 13, AAU Fall 2010 Fixed-Route Shuttle Service, p. 3-39, for the frequency of each shuttle route). The 47-foot-long shuttle stop can accommodate one large 42 passenger-capacity shuttle bus such as the H and I routes, or two smaller 25 passenger-capacity buses such as the M route. This shuttle stop was served by five shuttle bus routes (D, H, I, Q and R) in 2010. Route D operated every 20 minutes, Routes H and I each operated every 15 minutes, and Routes Q and R each operated every 30 minutes throughout the day. The total seating capacity for these five routes was 728 seats in the PM peak hour. Routes D, H, I, Q and R operated at 30, 63, 78, 29 and 18 percent capacity at the MLP, respectively, in 2010. During the shuttle peak hour, Routes D, H, I, Q and R operated at 64, 126, 130, 96 and 55 percent capacity, respectively at the MLP, with two routes (H and I) operating above the total seating capacity. MLPs occur at 860 Sutter Street on Route D, at 466 Townsend Street and on Route H, at 79 New Montgomery on Route I, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. As of spring 2015, six regular and one express shuttle bus routes (D, E, G, H, I, M and Sutter Express) serve this stop. These routes operate with a total seating capacity of 505 in the PM peak hour, a 30 percent reduction in service.

Because the existing shuttle zone accommodates one 42 passenger-capacity or two 25 passenger-capacity buses, and the anticipated frequency is every 3.5 minutes for the buses utilizing this stop, AAU shuttle buses have been reported to occasionally arrive in groups with some shuttle vehicles double parking in the adjacent transit-only lane.[518] Based on the current shuttle schedule and shuttle bus size serving ES-13, the existing shuttle trips require extending the shuttle zone up to 80 feet long (see Appendix TR-H for loading zone analysis). Therefore, a recommended Condition of Approval is included related to adjusting the shuttle schedule to spread shuttle arrival times and monitoring shuttle on-time performance, to manage the number of shuttle vehicles arriving at the white passenger loading zone at a given time.

Additionally, the existing shuttle zone at ES-13 is subject to No Stopping Tow Away regulations between the hours of 4:00 p.m. and 6:00 p.m. Thus, continued use of the shuttle zone during these

[518] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.

PM peak period hours on Sutter Street is in violation of the City's regulations during the PM peak period. Therefore, a recommended Condition of Approval is suggested related to shuttle stop relocation.

Bike Route 16 is on Sutter Street. However, during field observations, no substantial conflict between AAU shuttle buses and bicycle traffic was observed on Sutter Street due to the relative low volumes of bicycle traffic observed.

Pedestrian

The AAU student housing use at ES-13 generates approximately 99 pedestrian trips during the PM peak hour: 35 walking, five transit, and 59 shuttle trips. The 59 shuttle walking trips are short in length from the building entrance to the shuttle zone on Sutter Street in front of the building. Bush, Hyde, and Sutter streets are designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[519] Intersections near this site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Sutter Street/Leavenworth Street and Sutter Street/Jones Street intersections have pedestrian crossing signal heads. Sidewalks along Leavenworth Street and Sutter Street are approximately 14 and 12 feet wide, respectively. There is no curb cut bordering the site. The primary pedestrian access to the site is from Sutter Street through the main entry on the west side of the building. There is a secondary entry on Sutter Street for garbage disposal and direct access to the interior sidewalk.

Pedestrian volumes in the area were observed to be generally low to moderate except near the shuttle bus stop where occasional overcrowding or conflicts occurred as groups of students ranging from approximately one to ten were observed to be standing on the sidewalk in front of the AAU site waiting for a shuttle bus to arrive. The 99 pedestrian trips at ES-13 and 619 pedestrian trips for nearby sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]) have increased pedestrian volumes in the area; but given that these are generated from eight different AAU sites, they are able to be accommodated on the adjacent pedestrian facilities (12-foot-wide sidewalks along Sutter Street).

Although the adjacent pedestrian facilities are able to accommodate the estimated pedestrian demand in the area, a recommended Condition of Approval to monitor shuttle service levels and on-time performance and to count/assess waiting passengers is presented below. This Condition of Approval would manage students waiting for shuttles on sidewalks in front of the AAU site to prevent blockage of adjacent sidewalks. This condition recommends using potential physical improvements (providing waiting areas) or shuttle service improvements to address this condition. Generally, if shuttle service was managed to meet the demand, students would be less likely to gather or wait for shuttles in front of the ES-13 residential building.

Bicycle

The AAU student housing use at ES-13 generates four bicycle trips including two trips each in the inbound and outbound directions during the PM peak hour. Bicycle Route 16 is a Class III bike route

[519] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

that runs along Sutter Street and provides direct access to this site. This route connects to Route 45 on Steiner Street to the west and to Route 50 on Market Street to the east. AAU reports there is no bicycle parking provided on site; the nearest Class II public bicycle racks are located on the west side of the Jones Street sidewalks north of Sutter Street. This site generates a bicycle parking demand of approximately 12 spaces.[520] Pursuant to Planning Code Section 155.2, the 184-bed student housing use at ES-13 is required to provide 42 Class I bicycle and three Class II spaces.[521] Therefore, a Condition of Approval related to additional bicycle parking is recommended below.

The site's four PM peak hour bicycle trips, in combination with 22 PM peak hour bicycle trips from nearby sites under analysis (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), have not substantially affected the operation or capacity of bicycle facilities in the area.

Loading

The AAU student housing use at ES-13 generates approximately one daily truck trip. AAU reports that one large Sysco truck (large panel truck or small semi-trailer combination, depending on order volume) makes deliveries to this site twice a week on Mondays and Thursdays, typically between 11:00 a.m. and 2:00 p.m. The site does not have any off-street loading spaces; therefore delivery trucks need to utilize on-street parking or commercial loading zones. There is an approximately 20-foot-long on-street freight loading (yellow) space on Sutter Street between Leavenworth and Jones streets, approximately 150 feet west of the site, and the yellow zone accommodates one van- or pickup-size vehicle.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. The existing yellow freight loading zone was occupied most of the time during the observation period. While observation did not indicate regular freight/delivery activities to the site, commercial vehicles making deliveries to this site have to find available on-street parking or other commercial loading spaces in the vicinity for retail and hotel uses. Other commercial vehicles have been reportedly observed to double park along Sutter Street. Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU student housing use as noted during site visit has not substantially altered commercial loading conditions in the vicinity.

Garbage collection at this site occurs on the north side of Sutter Street, next to the entrance to the site. Trash receptacles are pulled from the interior sidewalk through the secondary door on Sutter Street and are placed along the sidewalk at designated areas. Garbage collection along Sutter Street occurs five times a week in the early morning hours.

[520] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[521] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

Parking

The AAU student housing use at ES-13 is not expected to generate a substantial amount of parking demand because students are not permitted to park private vehicles at residential sites and AAU discourages students from bringing private vehicles into San Francisco.[522] The site does not provide any off-street parking spaces. Although the site has not result in a regular increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. As presented in Table 60 above under 1153 Bush Street (ES-11), on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east and Post Street to the south was observed to be moderate to high, averaging about 86 percent during the midday period. Parking occupancy in the immediate vicinity of this AAU site was 60 to 108 percent (indicating double parking condition) along Sutter Street between Leavenworth and Jones streets. The student housing use at this AAU residential site is not expected to have substantially altered parking conditions in the area.

Emergency Vehicle Access

San Francisco Fire Department Station #41 (1325 Leavenworth Street) is the closest station to the AAU site, approximately 0.4 mile north of the site. From the station, vehicles are able to access the AAU site via Jones and Sutter streets and would be able to park along Sutter Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-13 include a potential need for increased shuttle service, shuttle double-parking, a potential shuttle/transit conflict, pedestrian/shuttle zone conflicts, and a lack of bicycle parking. To address these constraints, the following improvements/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-13: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for the shuttle routes serving 860 Sutter Street (D, E, G, H, I, M and Sutter Express), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Recommended Condition of Approval, ES-13: TR-2, Sidewalks/Shuttle Waiting. For this and/or the potential relocated shuttle stop serving 860 Sutter Street and nearby residential facilities (i.e., 1153 Bush Street, 1080 Bush Street, 817-831 Sutter Street), AAU shall continue to conduct a peak semester, peak weekday, 7:30 a.m. to 7:30 p.m. observation/count of shuttle passengers waiting for shuttles to determine if adjacent pedestrian facilities are being blocked at certain times of the day. AAU should consider improving shuttle waiting areas either inside or adjacent to (subject to San Francisco Department of Public Works review and approval) the building (such as adding benches to direct waiting passengers closer to the existing building). In addition, AAU could adjust shuttle routing and frequency to better meet the shuttle demand at this site.

[522] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed April 20, 2016.

Recommended Condition of Approval, ES-13: TR-3, Relocate Shuttle Stop. The AAU shuttle stop is located in the tow-away zone active between the hours of 4:00 p.m. and 6:00 p.m. adjacent to a transit-only lane. AAU shall relocate the shuttle stop to the existing shuttle zone on 491 Post Street, or shall work with SFMTA to find another suitable location, during the PM peak period.

Recommended Condition of Approval, ES-13: TR-4, Shuttle Zone Size and Double-Parking. Based on the existing shuttle schedule and the size of the shuttle buses serving this AAU site, the existing 47-foot-long loading zone cannot accommodate the peak loading demand causing shuttle buses to double park along Sutter Street. Consistent with AAU Shuttle Policy, AAU shall continue to adjust shuttle frequency and shuttle bus size to spread shuttle arrival times and monitor on-time performance to ensure the estimated peak shuttle demand is met within the shuttle zone.

Recommended Condition of Approval, ES-13: TR-5, Class I Bicycle Parking. AAU shall add 42 Class I bicycle parking to meet the Planning Code requirement for 860 Sutter Street. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Recommended Condition of Approval, ES-13: TR-6, Class II Bicycle Parking. AAU shall provide at least three (more if feasible to accommodate nearby AAU residents utilizing bicycle parking at this centralized shuttle stop) Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 860 Sutter Street (ES-13) is located on the north side of Sutter Street, approximately mid-block between Jones and Leavenworth streets in the Lower Nob Hill area. AAU currently has approximately 89 rooms with approximately 184 beds in ES-13. In 2010, AAU Shuttle routes D, H, I, Q, and R serve this site. As of 2015, AAU shuttle routes have been revised so that only routes D, E, G H, I M and Sutter Express serves ES-13. No vehicle trips are generated by the uses in ES-13; students use the AAU shuttle system, bicycles, and public transit.[523] According to the San Francisco Transportation Noise Map,[524] the existing traffic noise level near ES-13 from vehicular traffic along Sutter Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Sutter Street currently exceed the “satisfactory” level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-13. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the

[523] CHS Consulting Group, 2016. *AAU ESTM Transportation Section Draft #1A*. January 2016.
[524] San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

ES-13 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-13 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-13.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-13 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where residential units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels up to 70 dBA L_{dn}, more insulation than provided with conventional construction may be needed. However, the proposed change in use from group-housing to group-housing for a post-secondary educational institution would not be considered a change from a non-noise-sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-13, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2003, when AAU occupied the building. Area sources were estimated based on a 184 "dwelling unit" "Mid-Rise Apartments" land use designation in CalEEMod, to be conservative, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is an on-site heating steam boiler at ES-13. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 2000 was conservatively assumed for ES-13. Table 67 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-13, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD) daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-13 is not one of those sites; therefore, AAU occupation of ES-13 has not resulted in increased health risks for nearby sensitive receptors, and has not exposed new sensitive receptors to increased health risks.

Table 67. 860 Sutter Street (ES-13) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	3.27	0.94	0.16	0.16	0.55	0.16	0.03	0.03
Energy	0.18	0.16	0.01	0.01	<0.01	0.03	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	3.45	1.10	0.17	0.17	0.55	0.19	0.03	0.03
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-13 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Building Code, Chapter 13A), Residential Water Conservation Ordinance, and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-13 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery

Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-13: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-13 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-13.

Recreation

As shown on Figure 4, p. 3-63, 860 Sutter Street (ES-13) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) facilities: Collis P. Huntington Park, Tenderloin Recreation Center, and Hooker Alley Community Garden. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[525] Tenderloin Recreation Center, at 570 Ellis Street, features children's facilities such as a playground, activity programs, game courts, ball diamond, child-sized gymnasium, and teen club.[526] Hooker Alley Community Garden (also known as Nob Hill Community Garden) is operated by volunteers and allows its members to grow produce and ornamental plants.[527] Other publicly owned parks are within a 0.5-mile distance of ES-13, including Union Square, Chinese Recreation Center, and Willie "Woo" Wong Playground.

As described in Population and Housing on p. 4-334 – 4-335, the capacity of ES-13 is 184 beds. The change in use from a residential and tourist hotel to student housing (group housing for a postsecondary educational institution) at ES-13 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Huntington Park, Tenderloin Recreation Center, and Hooker Alley Community Garden facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street

---

[525] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.
[526] San Francisco Recreation and Parks, Tenderloin Rec Center. Available online at: http://sfrecpark.org/destination/tenderloin-rec-center-park/. Accessed on January 15, 2016.
[527] San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.

(ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-13 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous tourist and residential hotel land uses prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use still would not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[528] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-13. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[529] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use may have incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-13 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and

[528] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.
[529] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

is in the process of implementing new strategies to meet its zero waste goal by 2020.[530] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity to accommodate the site's and City's solid waste disposal needs.[531] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-13 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[532] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

860 Sutter Street has a capacity of 184 beds (89 group-housing rooms). The change in use from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) within an RC-4 Zoning District would not represent a substantial change in the overall population of the area. Thus, daytime population of the tourist and residential hotel would have been proximate to that of student housing, and additional police protection demand would be negligible. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-13.

[530] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[531] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[532] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Fire and Emergency Services

ES-13 is located within 1,700 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[533] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[534]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-13 meet the Citywide emergency transport goals.

As described above on pp. 4-334 – 4-335, the change in use from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new range fire suppression system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-13.

Libraries

The nearest public library to ES-13 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on pp. 4-334 – 4-335, the change in use from a tourist and residential hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. The change in population would be minimal compared to the service population for the Chinatown Branch and Main Libraries. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-13.

[533] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[534] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

Given the small size of the rooms, the previous use as a tourist and residential hotel likely had minimal, if any, school-aged children. The change in use to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand for SFUSD facilities, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[535] No change in the school-aged population would occur. For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-13.

Biological Resources

ES-13 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-13. ES-13 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-13.

Geology and Soils

Soils in the vicinity consist of loose, moist, moderate brown sand with brick fragments from the 1906 Earthquake and Fire fill. Approximately 13 feet below ground surface native soils begin and consist of brown silty sandy clay. Bedrock is encountered approximately 10 feet below ground surface. Groundwater depth ranges from 16 to 35 feet below ground surface and flows south to southeast.[536] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-13 would be very strong during a 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault or Hayward Fault, respectively.[537,538]

[535] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.
[536] Clayton Group Services, Phase I Environmental Site Assessment for 860 Sutter Street, June 2005.
[537] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[538] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

ES-13 is not located within a liquefaction zone.[539] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-13 is not composed of unreinforced masonry and does not have a soft story.[540, 541] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations undertaken after the change in use to student housing (group housing for a postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-13 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, windows, painting, handrails, and re-roofing). Regardless, wastewater and stormwater associated with the change in use at ES-13 and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-13 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[542] ES-13 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-13.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-13 did not identify the presence of underground storage tanks or significant historic use of hazardous materials located at the site, although adjoining properties and nearby properties may have environmental concerns, including a

---

[539] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[540] City and County of San Francisco, UMB – All Report, December 1, 2014.

[541] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[542] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

repair shop and dry cleaners.[543] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1913, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights and elevators, which may contain small quantities of PCBs if they were manufactured before 1978, were present, although there is no evidence of damage or leaks. Possible LBP was noted around window frames and radiators.[544] Lead was removed from the building in accordance with state and federal laws and regulations in 2008.[545] Therefore, effects from these hazardous materials would have been negligible.

ES-13 is used for student housing. Hazardous materials that are used, stored, and disposed of at ES-13 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-13.

Tenant improvements at ES-13 associated with the conversion of tourist and residential hotel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-352 – 4-353. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[546] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-13, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-13. This reduces the number of trips by private vehicle that could occur and, consequently, the amount of fuel that could be consumed.

[543] Clayton Group Services, Phase I Environmental Site Assessment for 860 Sutter Street, June 2005.
[544] Clayton Group Services, Phase I Environmental Site Assessment for 860 Sutter Street, June 2005.
[545] Bluewater Environmental Services, Uniform Hazardous Waste Manifest, EPA Form 8700-22, July 17, 2008.
[546] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 860 Sutter Street, March 4, 2016.

For all of these reasons, the change in use at ES-13 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-13 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

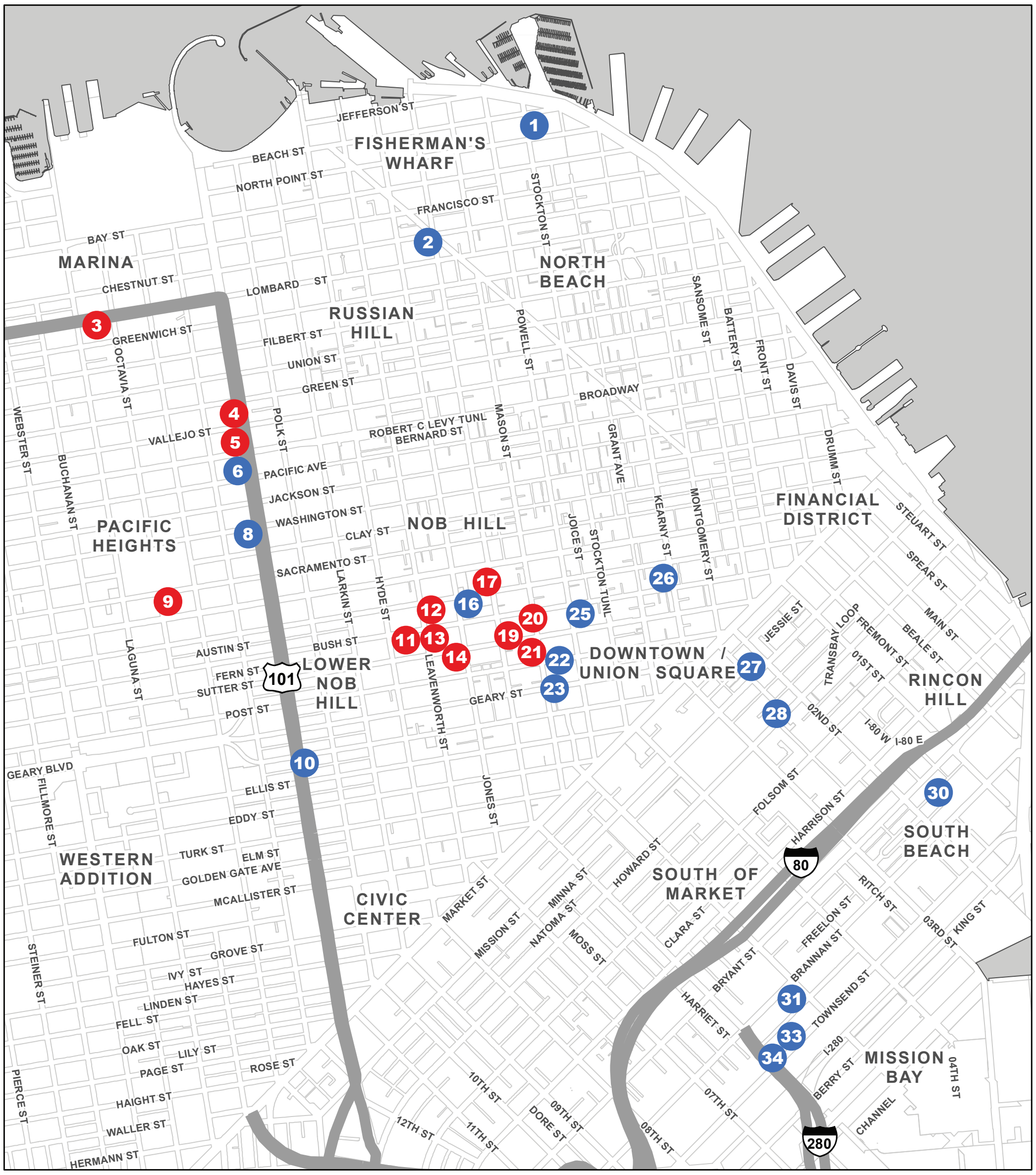
ES-13 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[547] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use of ES-13 has had no substantial effects on agriculture or forest resources.

[547] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

EXISTING SITES TECHNICAL MEMORANDUM

ACADEMY OF ART UNIVERSITY PROJECT

VOLUME 2



CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2008.0586E

ESTM PUBLICATION DATE: MAY 4, 2016

ESTM PUBLIC HEARING DATE: MAY 19, 2016

ESTM PUBLIC REVIEW PERIOD: MAY 4, 2016 TO JUNE 3, 2016

SEAL OF THE CITY AND COUNTY OF SAN FRANCISCO • ORO EN PAZ FIERRO EN GUERRA

SAN FRANCISCO
PLANNING
DEPARTMENT

ACADEMY OF ART UNIVERSITY PROJECT

EXISTING SITES TECHNICAL MEMORANDUM

VOLUME 2

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2008.0586E

ESTM PUBLICATION DATE: MAY 4, 2016

EIR PUBLIC HEARING DATE: MAY 19, 2016

ESTM PUBLIC REVIEW PERIOD: MAY 4, 2016 TO JUNE 3, 2016

SAN FRANCISCO
PLANNING
DEPARTMENT

Contents

VOLUME 1:

VOLUME 2:

Appendices

(Provided on CD)

Figures

Photographs

Tables

List of Acronyms

AAU	Academy of Art University
ABAG	Association of Bay Area Governments
ACM	asbestos containing material
ACS	American Community Survey
ADA	Americans with Disabilities Act of 1990
AM	ante meridiem
AQTR	Air Quality Technical Report
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BRT	Bus Rapid Transit
CEQA	California Environmental Quality Act
City	City and County of San Francisco
CMP	Congestion Management Program
COA	Certificate of Appropriateness
CRHR	California Register of Historical Resources
CU	conditional use
dBA	A-weighted decibel
EIR	Environmental Impact Report
ES	existing site
ESA	Environmental Site Assessment
ESTM	Existing Sites Technical Memorandum
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
HMBP	Hazardous Materials Business Plan
HMUPA	Hazardous Materials Unified Program Agency
HPC	Historic Preservation Commission
HRA	Health Risk Assessment
HVAC	heating, ventilating, and air conditioning
ITE	Institute of Transportation Engineers
L_{dn}	day-night average sound level
L_{eq}	equivalent continuous noise level
LBP	lead-based paint
LED	light-emitting diode
MLP	maximum load point
MTS	Metropolitan Transportation System
Muni	San Francisco Municipal Railway
NCD	Neighborhood Commercial District
NO_x	nitrogen oxides
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PCB	polychlorinated biphenyl
PDA	Priority Development Area
PM	post meridiem
$PM_{2.5}$	particulate matter, 2.5 microns or less in width
PM_{10}	particulate matter, 10 microns or less in width
PTA	Permit to Alter
pounds/day	pounds per day
ROSE	Recreation and Open Space Element
RPD	San Francisco Recreation and Park Department
ROG	reactive organic gases
SFDPH	San Francisco Department of Public Health
SFFD	San Francisco Fire Department
SFMOMA	San Francisco Museum of Modern Art
SFMTA	San Francisco Municipal Transit Agency
SFPD	San Francisco Police Department
SFPL	San Francisco Public Library
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SOIS	Secretary of the Interior Standards
SoMa	South of Market
SOV	single-occupancy vehicle
SRO	single-room occupancy
TAC	toxic air contaminant
TDM	Transportation Demand Management
TDIF	Transportation Impact Development Fee
TSP	Transportation Sustainability Fee
UCSF	University of California San Francisco
UMB	unreinforced masonry building
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VdB	vibration decibel
YWCA	Young Women’s Christian Association

This page intentionally left blank.

4.2.13. 817–831 Sutter Street (ES-14)

Property Information

The 817–831 Sutter Street existing site (ES-14) (called "825 Sutter Street" by Academy of Art University [AAU]) is a 51,990-square-foot, six-story building constructed in 1924, located on Sutter Street between Jones and Leavenworth streets, in the Downtown/Civic Center neighborhood (Photographs 76–79). The site is Lot 021 in Assessor's Block 0299. The residential building has 114 group-housing rooms and a capacity of 222 beds.

Prior to AAU occupation in 2006, the building was known as the Commodore Hotel, originally a merchant seaman hotel.[548] The hotel included a lobby and reception area, a restaurant and lounge, and a café on the ground floor. The student housing building also includes a computer lab, recreation room, and a study room. There is no shuttle stop at the site; students walk approximately 100 feet to the shuttle zone located along the frontage of 860 Sutter Street (ES-13), across the street from the site. Figure 11, ES-13 and ES-14: 860 and 817-831 Sutter St – Existing Condition, in Appendix TDM, shows this site near the corner of Sutter and Jones streets, and the shuttle zone in front of 860 Sutter Street.

The site is zoned RC-4 (Residential – Commercial – Combined, High-Density), which allows high-density residential uses, senior housing, group housing including single-room occupancy and student housing, retail uses on the first and second floors only, institutional uses, and hotels with a conditional use (CU) authorization, and entertainment and arts uses, among others. The height and bulk district at ES-14 is 80-A.

Tenant Improvements and Renovations

AAU added a sign that covered the original "Commodore" sign over the main entrance; the AAU sign has since been removed. AAU installed a new range fire suppression system, replaced guest room doors with fire-rated doors in response to a Notice of Violation (NOV), reroofed the building, and rerouted the fire sprinkler system. Four aluminum windows were replaced with vinyl windows on the east elevation in 2010 without a building permit being issued.[549] Security cameras were added without building permits.[550]

Required Project Approvals

The 817-831 Sutter Street existing site (ES-14) would require a CU authorization under San Francisco Planning Code (Planning Code) Sections 209.3 and 303, and a building permit under Planning Code Section 171 to change the use from a tourist hotel to student housing (group housing for a postsecondary educational institution) in a RC-4 Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

---

[548] *2011 IMP*, p. 100.

[549] Building Permits obtained for the improvements and renovations at ES-14 are: BPA #200605101259 (fire suppression system), #201008038026 (window replacement, permit never issued); #20130124686 (wall sign removal), #201111098578 (reroofing), #201110146837 (fire sprinkler system), and #201007146602 (replace doors in response to NOV #201052695).

[550] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 76. 817–831 Sutter Street (ES-14).

Photograph 77. Mid-block Sutter Street, facing southeast.

Photograph 78. Mid-block Sutter Street, facing northwest toward 860 Sutter Street (ES-13).

Photograph 79. Main entryway to ES-14.

Plans and Policies and Land Use

ES-14 is located in the Downtown/Civic Center neighborhood. In the immediate vicinity of ES-14 is a mixture of uses including commercial, residential, and institution (church). Although there is a mixture of uses, the block is predominantly characterized by multi-family apartments with some supporting ground-floor commercial uses. AAU occupies one other building on the block at 860 Sutter Street. The surrounding buildings on the subject block range from one to six stories. A nine-story residential building is currently under construction directly across the street from ES-14. The ES-14 building was built in 1924, is six stories, and is known as the Commodore Hotel.

Sutter Street is a three-lane, one-way westbound street with one dedicated bus-only lane. Metered parking is permitted on both sides of Sutter Street with interspersed freight and passenger loading zones and a bus stop at the northwest corner of Sutter and Mason streets. Parking is also located at a parking structure mid-block on the north side of Sutter Street.

The zoning near ES-14 is RC-4 (Residential – Commercial – Combined, High-Density). RC-4 Zoning Districts are intended to provide high-density housing with supporting commercial uses. ES-14 is not located within a Planning Area or Special Use District. The height and bulk district on either side of Sutter Street near ES-14 is 80-A.

As noted above, the use of ES-14 has been changed by AAU from a tourist hotel to student housing (group housing for a postsecondary educational institution). The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. The change in use of the site from a tourist hotel to student housing (group housing for a postsecondary educational institution) would be compatible with the primarily residential use of the RC-4 Zoning District. However, the change in use would intensify AAU's presence in the vicinity, as another AAU building is located on the same block (860 Sutter Street). Four other AAU buildings are located two blocks to the west at 620, 625, 655, and 680 Sutter Street. One building is located at 740 Taylor Street. The intensification could cause localized changes to the character of the neighborhood and patterns of use at the site (i.e., student populations would replace hotel guests). The change in use would not be incompatible with existing uses in the vicinity, because student housing is typical of the urban area in which ES-14 is located.

Student housing (group housing for a postsecondary educational institution) use is subject to approval by the City and County of San Francisco (the City) Planning Commission as a Conditional Use within an RC-4 Zoning District. ES-14 would also require a building permit pursuant to Planning Code Section 171. Therefore the ES-14 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-14 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-14 is 222 beds (114 group-housing rooms). The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) did not alter the daytime population of the building because the previous use as a hotel would have had a comparable capacity. However, student residents denotes a more permanent change to population compared to tourists that would vacate the rooms after a short period of time. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-14 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[551]

Given the close proximity of other AAU student housing locations at 620, 655, 680, and 860 Sutter Street, the neighborhood population of AAU students is relatively high (approximately 768 student residents) on Sutter Street, between Leavenworth and Mason streets. The student population would be typical of a vibrant urban neighborhood with a mixture of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[552] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[553] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable City center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-14.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The change in use at ES-14 from a tourist hotel to student housing (group housing for a postsecondary educational institution) provides a dense housing option for students that could alleviate some pressure on Citywide housing demand, because the previous hotel use did not provide any housing opportunities. In addition, if AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). The effects on housing demand would be minimal, because the capacity is limited to 222 beds. No substantial effect on housing demand has occurred from the change in use of ES-14.

Aesthetics

ES-14 is located in the Downtown/Civic Center neighborhood. The Nob Hill neighborhood is one block to the north. The building was built in 1924 and is six stories. The building was previously

[551] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

[552] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.

[553] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

known as the Commodore Hotel and still has a large wall-mounted blade sign, a sign above the main entry, and green and blue coloring denoting the former use. It exemplifies a multi-family residential building in Nob Hill and is a contributor to the Lower Nob Hill Apartment Hotel National Register Historic District. Three street trees are located in front of ES-14 on Sutter Street, partially obstructing the ground-floor façade. ES-14 is bordered by buildings to the east, west, and south, and Sutter Street to the north.

ES-14, or the Commodore Hotel Building, is the most prominent building on the block with its colorful façade and colonial revival architecture. The Lower Nob Hill Apartment Hotel National Register Historic District has a high concentration of residential and ground-floor retail/commercial uses. The Lower Nob Hill Apartment Hotel District consists of mainly three- to seven-story multi-unit residential buildings that were constructed between 1906 and 1925, giving them a remarkable consistency in style. Most buildings have visible fire escapes in the front of the building.

The topography is sloped down toward the Financial District and Bay to the east, and sloped up toward the top of Nob Hill to the north. Due to the urban character of the neighborhood, bordering roadways contain a high volume of traffic at almost all times of the day and week. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The surrounding area contains mainly mid-rise buildings encompassing residential functions. The architecture on the subject block is very similar and consists of historic apartment buildings that are part of the larger Lower Nob Hill Apartment Hotel National Register Historic District. In general, buildings extend to the sidewalk and are similar in size and scale. Some buildings have ground-floor retail, whereas others are solely residential use throughout.

The change in use at ES-14 has caused no visual changes to the building or neighborhood. No exterior alterations with the exception of security cameras are indicative of AAU use. Therefore, no substantial changes to aesthetics have occurred from the change in use.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The mid-rise building at 817–831 Sutter Street (ES-14) was constructed in 1924 as a residential and commercial hotel. The building has a T-shape plan and is set flush to the sidewalk on a rectangular, sloped lot with the primary elevation facing north on Sutter Street. With Spanish Colonial details, the building features a symmetrical design with a stucco façade, and is capped with a flat roof with a short, steep parapet sheathed in red clay tile and topped by pinnacles. The primary elevation has a delineated commercial storefront on the first story covered in green and purple panels. The main entry is centered on the elevation and is composed of a non-original, recessed aluminum framed, glass double-door with large sidelights and transom. Above the main entry is a metal canopy with sign that reads “Commodore.” To the west of the main entry is a curved entry with a set of paneled double-doors with a metal security gate, which formerly led to a bar. East of the main entry is a former restaurant space (now vacant) that is delineated by a large fixed window and two single doors; one glass with a transom window; and an adjacent metal personnel door. Above the first floor, projecting window bays on the second through the sixth stories form defined vertical elements on the east and west sides of the building. Between the projecting window bays, rectangular windows are symmetrically spaced on the second through the fifth stories, whereas the sixth-story windows are arched. Rounded balconies with decorative entablature sand brackets are located in front of the easternmost and westernmost sixth-story windows. A detailed frieze separates the fifth and sixth stories and the decorative parapet features escutcheon on the projecting bays. Vinyl sliding windows have replaced the original windows on the upper stories. Secondary elevations are visible from a small courtyard on the east and a walkway on the west, both of which are accessed via a personnel door from the basement. The secondary elevations comprise horizontal bands of windows comprising non-original vinyl and aluminum sliders, double-hung, and casement windows.

The main entry leads to a large open lobby, which features decorative molding, columns, and pilasters. When the lobby was reconfigured in 1956, the elevator doors and other interior features were removed, and more recently a glass door leading to a room behind the lobby has been added. A door on the east side of the room provides access to the yoga room, which recently replaced a former bar located in the western, ground-level commercial space. The room is now an open space with modern materials typical of its function. A glass door on the west side of the lobby, also accessed through the glass door on the primary elevation, is a former coffee shop that appears to date to the 1990s or 2000s. The materials, including seating and kitchen equipment, have been left in place although the space remains vacant. Marble stairs from the lobby lead to the residential floors with double-loaded corridors. Original rounded ceilings and wainscoting are extant throughout the upper stories (for representative photographs refer to Photographs 80–82).

Photograph 80. 817–831 Sutter Street.

Photograph 81. 817–831 Sutter Street, close up of main entry canopy and sign

Photograph 82. Interior lobby of subject property.

<u>Site History</u>

Designed by H.C. Baumann and Edward Jose, the hotel at 817–831 Sutter Street was built by owner James Welsh originally as a bachelor hotel.[554] According to the *San Francisco Chronicle* article, published 1 January 1924:

> The six-story and basement building, comprising 116 rooms, each with private bath, occupies ground 82x110 feet, which was purchased through [Louis T.] Samuels by James A. Welsh a few months back. Stores will occupy the balance of the ground floor not occupied by the lobby and entrance.[555]

Although little is known about James Welsh, from the numerous articles in the *San Francisco Chronicle*, he appears to have been a builder and developer.[556]

A native of the Bay Area, Herman Carl Baumann studied at the San Francisco Architectural Club. He worked in the offices of Thomas Edwards, Norman Sexton, and the George Wagner Construction Co. before opening his own practice in 1924. He then partnered with Edward Jose, a former City

---

[554] San Francisco Chronicle, Bachelor Hotel to Be Built on Sutter Street, October 20, 1923.
[555] San Francisco Chronicle, 10-Year Lease Is Signed for Hotel, January 1, 1924.
[556] San Francisco Chronicle, Record of Realty and Building Operation, April 27, 1901; San Francisco Chronicle Elegant Modern Homes, September 27,1914; San Francisco Chronicle, $70,000 apartment House to Be Built, September 2, 1922; and San Francisco Chronicle, Builder Will Erect 28 Small Dwellings, May 31, 1924.

building inspector, for a short period of time. Baumann had a prolific career in San Francisco, stating he had designed over 1,150 buildings, including apartments, pairs of flats, and single-family residences, in a self-written career summary in 1952. Notable works includes 620 Jones Street (The Gaylord Hotel, 1928), 290 Lombard (apartment building, 1940), and numerous houses in Pacific Heights, including 1950 Clay Street (1930), 1950 Gough Street (1926), and 1895 Pacific Avenue (1931).

By 1956 the hotel owner was listed as the Commodore Hotel, which hired Bolton White and Jack Hermann to complete the renovation of the hotel lobby and first floor. The firm of White and Herman was established in 1948. The practice expanded in 1958 to include Allen Steinau, and in 1961 with Don Hatch. After 1961 the firm was known as Hatch, White, Hermann, and Steinau.[557] The firm featured a diverse work of modern architecture, however they are primarily known for 2233 Post Street (commercial, 1962), which was the first commercial building completed under the Western Addition Redevelopment Agency Program.[558]

The Commodore Hotel installed the "Commodore" marquee in 1957 and continued to be listed as the owner until 1966. As of 1969 Craig P. Smith was listed as the owner until 1991. From 1995 to 2006, building permits listed several owners, including Ingrid Summerfield (1997), Joie De Vivre Hospitality (2004), and Commodore LLC (2006).

California Register of Historical Resources Evaluation

817–831 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District (and is therefore a historical resource under the California Environmental Quality Act [CEQA]).

In addition to being listed on the NRHP, 817–831 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential and hotel development in Nob Hill during the post-1906 Earthquake and Fire Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences and hotels. The property represents a distinctive example of a hotel building in Nob Hill with unique Spanish Revival-style details.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[559] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

[557] San Francisco Chronicle, People in the News, January 19, 1961.
[558] San Francisco Planning Department, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, Appendix B, p. 3.
[559] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

The subject property retains integrity on the upper floors and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1924 to 1940, with the end date corresponding with end of the historic district's period of significance.

Character-Defining Features Summary

Exterior

- Scale and massing: six-story height; T-shaped plan
- Siting: flush with sidewalk along Sutter Street
- Symmetrical design composition
- Flat roof with short, steep parapet sheathed in red clay tile
- Delineated commercial storefront
- Defined fenestration pattern with larger, square window openings within the projecting outer bays and smaller rectangular windows on the central bay
- Detailed cornice and frieze
- Pinnacles along the roofline
- Sixth story rounded balcony with decorative entablature and brackets
- Stucco wall surface
- Original double-hung windows on secondary elevations
- Fire escape (north elevation)

Interior

- Spatial arrangement: open lobby interior, flanked by commercial spaces, and double-loaded corridors in upper floors
- Original elevator space
- Original tile floors and fireplace (ground story)
- Decorative molding, columns, and pilasters in lobby
- Marble stairs and base
- Entryway, door pattern on wall
- Original doors and trim
- Rounded ceilings, and trim and wainscoting in upper-level hallway

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations undertaken by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs of the building indicate that the original windows overall were divided light casements. The installation of four vinyl windows on the secondary elevation is not consistent with the distinctive character and materials of the historic fenestration on the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The non-original aluminum windows introduce an element that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs of the building indicate that the original windows were divided light casement windows. The installation of four vinyl windows on the secondary elevation is not consistent with the original windows, which contributed to the historic character of the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the vinyl windows are not consistent with the historic character of the property, new windows can be installed that replicate the materials and window pane configuration of the original divided-light windows.

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 817–831 Sutter Street (ES-14) into compliance with the Secretary of the Interior's Standards.

Recommended Condition of Approval, ES-14: HR-1, Windows. The window removal and replacement does not meet Standard Nos. 2, 3, 5, 6, or 9. However, the secondary elevation is not visible from the public right-of-way, and the affected features are considered of secondary character-defining importance. The Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS)-compliant approach would be to remove and replace vinyl windows with period-appropriate windows, based on documentary evidence. In addition, per the SOIS, original features should be retained and repaired where possible, and, where necessary, replaced in-kind (to match in materials and appearance).

Archaeology and Paleontology

Building alterations at ES-14 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-14 is located on the south side of Sutter Street between Jones and Leavenworth streets in the Lower Nob Hill area. The approximate 51,990-square-foot, six-story structure is the former 114-room Commodore Hotel and was built in 1924 as a merchant seaman hotel. AAU occupied this building in 2006 and currently uses the building for student housing with 114 group-housing units providing a total of 222 beds. The café on the ground floor is closed and that space was not in use in 2015.

No vehicle or bicycle parking is provided on site. There are three pedestrian entries to the building along Sutter Street: one centralized main entry through the glass doorway and two gated secondary entries, one on each side of the building for access to the interior sidewalk area and yoga room, respectively. There is a 42-foot-long passenger (white) zone, a 20-foot-long commercial (yellow) zone, and a metered parking space along the frontage of this site. No AAU shuttle stop is provided at this site, and the existing white passenger loading zone in front of the site is used for campus tours and as a drop-off area for students being driven to the building. The nearest shuttle service is in front of 860 Sutter Street (ES-13), across the street from ES-14, which is served by seven shuttle routes (D, E, G, H, I, M, and Sutter Express). Based on the recommended Condition of Approval suggested under 860 Sutter Street (ES-13), the shuttle zone could be relocated to this location during the PM peak period between 4:00 p.m. and 6:00 p.m. only. Potential safety hazards associated with this relocation plan are further discussed below.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, this AAU site generates approximately 133 person trips (61 inbound trips and 72 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-14 is served by Bush Street, Sutter Street, Jones Street, Leavenworth Street, and Post Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The characteristics of nearby roadways are discussed in detail above under 1153 Bush Street (ES-11) and 1080 Bush Street (ES-12). The configuration of the roadways adjacent to ES-14 are summarized here. Transit and shuttle traffic are discussed below under the Transit and Shuttle subsections.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. In the vicinity of this AAU site, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City's Vision Zero network.

Leavenworth Street is a north-south downtown residential street that runs between Fisherman's Wharf and McAllister Street. In the vicinity of ES-14, Leavenworth Street has two northbound lanes and unmetered (2-hour time-limited) parking on both sides of the street. The *San Francisco General Plan* classifies Leavenworth Street as a Secondary Arterial in the CMP Network. Leavenworth Street south of Sutter Street is designated as a High Injury Corridor in the City's Vision Zero network.

Jones Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Jones Street has three southbound lanes and metered parking on both sides of the street.

Sutter Street is an east-west downtown residential/commercial throughway street that runs westbound between Presidio Avenue and Battery Street. Sutter Street is part of the Sutter/Post streets one-way couplet. In the vicinity of the AAU sites, Sutter Street has two westbound vehicle lanes, a westbound transit-only lane and metered parking on both sides of the street. The parking lane along the north side of the street converts into a travel lane during the PM peak period between 4:00 p.m. and 6:00 pm., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Sutter Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Sutter Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Post Street is an east-west downtown residential street that runs between Presidio Avenue and Market Street. In the vicinity of this AAU site, Post Street has two eastbound vehicle lanes, one transit-only lane, and metered parking on both sides of the street. The *San Francisco General Plan* classifies Post Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Post Street is designated as a High Injury Corridor in the City’s Vision Zero network.

The student housing use at ES-14, along with nearby AAU student housing uses at 1153 Bush Street (ES-11), 1080 Bush Street (ES-12), 860 Sutter Street (ES-13), 1055 Pine Street (ES-17), and 620 Sutter Street (ES-20), are not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles. Even in combination with the 24 PM peak hour vehicle trips generated by the postsecondary educational institutional uses at 491 Post Street (ES-23) and a residential amenity at 1069 Pine Street (ES-16), traffic operating conditions in the vicinity have not been substantially altered by the AAU student housing use at this site.

Transit

The AAU student housing use at ES-14 generates approximately seven transit trips during the PM peak hour, three trips in the inbound direction and four trips in the outbound direction. The low number of transit trips is primarily due to students using AAU shuttles rather than public transit, including on weekends. Similar to 1153 Bush Street (ES-11), ES-14 is generally served by Muni bus lines 2-Clement, 3-Jackson, and 27-Bryant. These routes provide connections to Muni rail service on Market Street. The nearest Muni bus stop to ES-14 is located at the Jones Street/Sutter Street intersection for all three lines, and it has a shelter and signage with transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 68.

Table 68. 817-831 Sutter Street (ES-14) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/ 8th	46%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, the increased demand of seven transit trips in the PM peak hour, in combination with the 126 transit trips from other nearby AAU existing sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit service in the area. There is no existing shuttle stop at this site; thus AAU shuttle service has not substantially conflicted with the operation of Muni transit vehicles. If, as a potential Condition of Approval for the 860 Sutter Street (ES-13) site, the shuttle stop at 860 Sutter Street (ES-13) is temporarily (just during the PM peak hour) relocated to ES-14, the white zone on the south side of the street would not conflict with Sutter Street transit, which occupies the north transit-only lane.

Shuttle

The AAU student housing use at ES-14 generates approximately 76 shuttle riders during the PM peak hour, 35 riders in the inbound direction and 41 riders in the outbound direction. AAU shuttle routes D, E, G, H, I, M, and Sutter Express currently operate adjacent to the site on Sutter Street, but no shuttle stop is provided at ES-14. Instead, students walk approximately 100 feet to the shuttle zone located along the frontage of 860 Sutter Street (ES-13), across the street from ES-14. AAU shuttle riders have to cross Sutter Street at Jones Street to reach the shuttle bus stop. This shuttle stop was served by five shuttle bus routes (D, H, I, Q and R) in 2010. Route D operated every 20 minutes, Routes H and I each operated every 15 minutes, and Routes Q and R each operated every 30 minutes throughout the day. The total seating capacity for these five routes was 728 seats in the PM peak hour. Routes D, H, I, Q and R operated at 30, 63, 78, 29 and 18 percent capacity at the MLP, respectively, in 2010. During the shuttle peak hour, Routes D, H, I, Q and R operated at 64, 126, 130, 96 and 55 percent capacity, respectively at the MLP, with two routes (H and I) operating above the total seating capacity. MLPs occur at 860 Sutter Street on Route D, at 466 Townsend Street and on

Route H, at 79 New Montgomery on Route I, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. As of spring 2015, six regular and one express shuttle bus routes (D, E, G, H, I, M and Sutter Express) serve this stop. These routes operate with a total seating capacity of 505 in the PM peak hour, a 30 percent reduction in service.

There is a 42-foot-long white passenger-loading zone along the frontage of ES-14, which is occasionally utilized for campus tours and as a drop-off area for students being driven to school. Since no shuttle service is provided for this site, it is recommended that the white zone in front of ES-14 be removed and returned to public parking. Due to limited commercial parking in the area, the potential for conversion to commercial (yellow zone) parking should be discussed with SFMTA. This recommended Condition of Approval is presented below

Pedestrian

The AAU student housing use at ES-14 generates approximately 128 pedestrian trips in the PM peak hour: 45 walking, 7 transit, and 76 shuttle trips. Similar to 860 Sutter Street (ES-13), which is located across the street from this site, sidewalks and crosswalks are moderately used during the midday period in the area. Bush, Hyde, and Sutter streets are designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[560] Intersections near this site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Sutter Street/Leavenworth Street and Sutter Street/Jones Street intersections have pedestrian crossing signal heads. Sidewalks along Sutter Street and Jones Street are approximately 12 feet wide. There is no curb cut bordering the site. The primary pedestrian access to the site is through the main central doorway on Sutter Street. There are two secondary entrances on Sutter Street on each side of the building for access to the interior sidewalk and yoga room.

Pedestrian volumes were observed to be generally moderate in the vicinity of the site, and pedestrians were observed to move freely in the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas, nor were a considerable number of pedestrians observed standing outside of ES-14 or at Muni bus stop shelters located at the Jones Street/Sutter Street intersection. No instances of sidewalk overcrowding or pedestrian-vehicle conflicts at crosswalk locations were observed.[561] The 128 PM peak hour pedestrian trips at ES-14, in combination with the 590 PM peak hour pedestrian trips from other nearby AAU existing sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), have increased pedestrian volumes in the area; but given that these are generated from eight different AAU sites, the estimated pedestrian trips are spread to multiple streets throughout the PM peak hour and are accommodated on the adjacent pedestrian facilities (12-foot-wide sidewalks along Sutter Street).

Bicycle

The AAU student housing use at ES-14 generates five bicycle trips during the PM peak hour, two trips in the inbound direction and three trips in the outbound direction. Bicycle Route 16 is a Class III bike route that runs along Sutter Street and provides direct access to the site. Route 16 connects to

[560] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

[561] Field observation was made by CHS on Thursday, July 16, 2015, between 1:00 p.m. and 3:00 p.m.

Route 45 on Steiner Street to the west and to Route 50 on Market Street to the east. AAU reports there is no bicycle parking provided on site, and the nearest Class II public bicycle racks are located on the west side of Jones Street north of Sutter Street. This site generates a bicycle parking demand of approximately 14 spaces.[562] Pursuant to Planning Code Section 155.2, the 222-bed student housing use at ES-14 is required to provide 49 Class I bicycle and six Class II spaces.[563] Therefore, a Condition of Approval related to additional bicycle parking is recommended below.

The site's five PM peak hour bicycle trips, even in combination with the 21 bicycle trips from other nearby AAU existing sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), have not substantially affected the operation or capacity of bicycle facilities in the area. Given that the site includes 222 beds of student housing use, a Condition of Approval related to additional Class I and Class II bicycle parking is recommended below.

Loading

The AAU student housing use at ES-14 generates approximately two daily truck trips, which equates to a loading demand of approximately 0.1 trip in an average hour. This site does not have any off-street loading spaces. There is an approximately 20-foot-long on-street freight loading (yellow) space along the frontage of the site, which accommodates up to one van- or pickup-size vehicle.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. The existing yellow freight loading zone was occupied most of the time during the observation period. While observations indicate no regular freight/delivery activities to the site, commercial vehicles making deliveries to ES-14 find available on-street parking or other commercial loading spaces in the vicinity, such as the yellow zone on the south side of Sutter Street east of Jones Street, approximately 300 feet east of ES-14. Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU student housing use as noted during site visit has not substantially altered commercial loading conditions in the vicinity.

Garbage collection at this site occurs on the south side of Sutter Street, next to the entrance for the site. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection along Sutter Street occurs four times a week in the early morning hours.

Parking

The AAU student housing use at ES-14 is not expected to generate a substantial amount of parking demand because students are not permitted to park private vehicles at residential sites and AAU discourages students from bringing private vehicles into San Francisco.[564] The site does not provide

---

[562] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[563] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

[564] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed April 20, 2016.

any off-street parking spaces. Although the site has not resulted in an increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, June 8, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. As presented in Table 60 above under 1153 Bush Street (ES-11), on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east and Post Street to the south was observed to be moderate to high, averaging about 86 percent during the midday period. Parking occupancy in the immediate vicinity of this AAU site was 60 to 108 percent (indicating double parking is occurring) along Sutter Street between Leavenworth and Jones streets. The student housing use at this AAU residential site is not expected to have substantially altered parking conditions in the area.

Emergency Vehicle Access

San Francisco Fire Department Station #41 (1325 Leavenworth Street) is the closest station to the AAU site, approximately 0.4 mile north of the site. From the station, vehicles are able to access the AAU site via Jones and Sutter streets and would be able to park along Sutter Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-14 include an existing white passenger loading zone that does not serve the AAU shuttle system, multiple pedestrian entrances in the building façade that affect the pedestrian environment, and a lack of bicycle parking available at ES-14. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-14: TR-1, White Passenger Loading Zone. Since no shuttle service is provided to this site, AAU shall remove the 42-foot-long white passenger-loading zone in front of the 817-831 Sutter Street site and returne the resulting space to public parking or a commercial loading zone.

Recommended Condition of Approval, ES-14: TR-2, Pedestrian Environment. As noted above, the ground floor building face of the 817-831 Sutter Street building includes four entryways (one gated), one large and one small window, and one large building face. AAU shall coordinate with the San Francisco Planning Department on a more pedestrian-friendly design, if compatible with the historic fabric of the building. For a student housing use, AAU does not likely need all four entries, and minor modifications (doors, windows, etc.) to the building could be made to improve the pedestrian environment along Sutter Street.

Recommended Condition of Approval, ES-14: TR-3, Class I Bicycle Parking. AAU shall add 49 Class I bicycle parking to meet the Planning Code requirement for the 817-831 Sutter Street site. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Recommended Condition of Approval, ES-14: TR-4, Class II Bicycle Parking. AAU shall provide at least 6 Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 817–831 Sutter Street (ES-14) is located on the south side of Sutter Street between Jones and Leavenworth streets in the Lower Nob Hill area. AAU occupied this building in 2006 and changed the use from hotel to group housing for a postsecondary institution. AAU currently has approximately 114 rooms and a total of 222 beds and a closed cafe. There is no AAU shuttle stop provided adjacent to ES-14 but one is located across Sutter Street in the same block. No vehicle trips are generated by the uses in ES-14;[565] students use the AAU shuttle system, bicycles, and public transit According to the San Francisco Transportation Noise Map,[566] the existing traffic noise level near ES-14 from vehicular traffic along Sutter Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Sutter Street currently exceed the "satisfactory" level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-14. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-14 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-14 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-14.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-14 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are proposed in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels up to 70 dBA L_{dn}, more insulation may be needed than provided with conventional construction to maintain acceptable interior noise levels of 45 dBA, L_{dn}.

If the residential building at ES-14 does not meet the California Noise Insulation Standards, traffic noise in the area has the potential to result in unacceptable noise levels that could disturb sleep. Implementation of the following recommended Condition of Approval for Interior Noise Levels for

[565] CHS Consulting Group, 2016. *AAU ESTM Transportation Section Draft #1A*. January 2016.
[566] San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Residential Uses would reduce the effect of exposure to excessive noise levels and would meet *San Francisco General Plan* recommendations for a residential use:.

Recommended Condition of Approval, ES-14: NO-1, Interior Noise Levels for Residential Uses. For existing AAU residential buildings located along streets with noise levels above 60 dBA L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by a person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms) at ES-14, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2006, when AAU occupied the building. Area sources were estimated based on a 114 “dwelling unit” “Mid-Rise Apartments” land use designation in CalEEMod, to be conservative, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is a heater boiler at ES-14. However, this boiler was installed prior to AAU occupation of ES-14 and was not included in the air quality analysis. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 2005 was conservatively assumed for ES-14. Table 69 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 to 10.0 micrometers in diameter (PM_{10}) and 2.5 micrometers in diameter ($PM_{2.5}$) from ES-14, which are all shown to be below the BAAQMD daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 – 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-14 is not one of those sites; therefore, AAU occupation of ES-14 has not resulted in increased health risks for nearby sensitive receptors, and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco’s ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City’s *Strategies to Address Greenhouse Gas Emissions*. San Francisco’s *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco’s GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state’s GHG reduction law and policy goals.

Table 69. 817–831 Sutter Street (ES-14) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	3.41	0.12	0.04	0.04	0.56	0.01	<0.01	<0.01
Energy	0.03	0.25	0.02	0.02	<0.01	0.05	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	3.44	0.38	0.06	0.06	0.56	0.06	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-14 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-14 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-14: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-14 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-14.

Recreation

As shown on Figure 4, p. 3-63, 817–831 Sutter Street (ES-14) is located within 0.25 mile of four San Francisco Recreation and Park Department (RPD) facilities: Collis P. Huntington Park, the Tenderloin Recreation Center, Hooker Alley Community Garden, and Father Alfred E. Boeddeker Park. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[567] The Tenderloin Recreation Center, at 570 Ellis Street, features children's facilities such as a playground, activity programs, game courts, a ball diamond, a child-sized gymnasium, and a teen club.[568] Hooker Alley Community Garden (also known as Nob Hill Community Garden), is operated by volunteers and allows its members to grow produce and ornamental plants.[569] Alfred E. Boeddeker Park, at 295 Eddy Street, features a basketball half-court, swings, slides, play structures, and a community clubhouse.[570] Other publicly owned parks are within a 0.5-mile distance of ES-14, including Union Square, Chinese Recreation Center, and Willie "Woo Woo" Wong Playground.

As described in Population and Housing on pp. 4-363 – 4-364, the capacity of ES-14 is 222 beds. The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) at ES-14 does not represent a substantial change in the area's population. The change in the residential population is considered a minimal increase compared to the service population for the Collis P. Huntington Park, Tenderloin Recreation Center, Hooker Alley Community Garden, and Father Alfred E. Boeddeker Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreational facilities has occurred as a result of the change in use.

---

[567] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.

[568] San Francisco Recreation and Parks, Tenderloin Rec Center. Available online at: http://sfrecpark.org/destination/tenderloin-rec-center-park/. Accessed on January 15, 2016.

[569] San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.

[570] San Francisco Recreation and Parks, Father Alfred E. Boeddeker Park. Available online at: http://sfrecpark.org/destination/father-alfred-e-boeddeker-park/. Accessed on January 15, 2016.

Utilities and Service Systems

Water Supply

ES-14 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous tourist hotel land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[571] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-14. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[572] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-14 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[573] In addition,

---

[571] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[572] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[573] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[574] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-14 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[575] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of AAU students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

817–831 Sutter Street has a capacity of 222 beds (114 group-housing rooms). The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) within an RC-4 Zoning District would not represent a substantial change in the overall population of the area. Thus, daytime population of the hotel would have been proximate to that of student housing, and additional police protection demand would be negligible. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change of use. No substantial effect on police protection has occurred as a result of the change in use at ES-14.

Fire and Emergency Services

ES-14 is located within 3,000 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[576] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41

---

[574] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[575] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[576] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[577]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-14 meet the Citywide emergency transport goals.

As described above on p. 4-363 – 4-364, the change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed new fire-rated doors, installed a new range fire suppression system, and rerouted the fire sprinkler system, improving fire safety at the property. No measurable changes in response times have occurred since the change of use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-14.

Libraries

The nearest public library to ES-14 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-363 – 4-364, the change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-14.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as tourist hotel had no effect on nearby schools because tourists' children would not be enrolled in area schools. Similarly, the change in use to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand to SFUSD, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[578] No change in the school-aged population would occur. For the reasons stated above, no substantial effect on schools would result from the change in use at ES-14.

---

[577] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

[578] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

Biological Resources

ES-14 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-14. ES-14 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-14.

Geology and Soils

Soils in the vicinity consist of loose, moist, moderate brown sand with brick fragments from the 1906 Earthquake and Fire fill.[579] Approximately 13 feet below ground surface native soils begin and consist of brown silty sandy clay. Bedrock is encountered approximately 30 feet below ground surface. Groundwater depth ranges from 16 to 35 feet below ground surface and flows south to southeast.[580] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground-shaking from earthquakes. Ground-shaking intensity at ES-14 would be very strong during a 7.2-magnitude earthquake and would be strong during a 6.5-magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[581, 582] ES-14 is not located within a liquefaction zone.[583] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-14 is not composed of unreinforced masonry and does not have a soft story.[584, 585] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from tourist hotel to student housing (group housing for a postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

---

579 Clayton Group Services, Phase I Environmental Site Assessment for 825 Sutter Street, December 2008.

580 Clayton Group Services, Phase I Environmental Site Assessment for 825 Sutter Street, December 2008.

581 San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

582 San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

583 San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

584 City and County of San Francisco, UMB – All Report, December 1, 2014.

585 Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-14 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of windows and security cameras). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-14 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency. The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[586] ES-14 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-14.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-14 did not identify the presence of underground storage tanks or significant historic use of hazardous materials.[587] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1924, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspect ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, are present throughout the building, although there is no evidence of damage or leaks. The paint condition in the building is good except for the basement.[588] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

---

[586] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

[587] Clayton Group Services, Phase I Environmental Site Assessment for 825 Sutter Street, December 2008.

[588] Geologica, Inc., Phase I Environmental Site Assessment for 79 New Montgomery Street, San Francisco, CA, 94107, March 2003.

AAU uses ES-14 as student housing with a recreation room and computer lab. Hazardous materials that are used, stored, and disposed of at ES-14 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects on mineral resources or mineral recovery sites have occurred as a result of the change in use of ES-14.

Tenant improvements at ES-14 associated with the conversion of tourist hotel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-379 – 4-380. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[589] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-14, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at nearby 860 Sutter Street (ES-13). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-14 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a substantial manner.

Therefore, the change in use at ES-14 had not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-14 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[590] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-14 has had no substantial effects on agriculture or forest resources.

---

[589] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 817–831 Sutter Street, March 4, 2016.

[590] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.14. 1069 Pine Street (ES-16)

Property Information

The 1069 Pine Street existing site (ES-16) is a one-story, 1,875-square-foot building constructed in 1921, located on Pine Street between Taylor and Jones streets, in the Nob Hill neighborhood (Photographs 83–86). Figure 12, ES-16 and ES-17: 1069 and 1055 Pine St – Existing Condition, in Appendix TDM, shows the site near the corner of Pine and Jones streets. The site is Lot 008 in Assessor's Block 0275. Academy of Art University (AAU) uses the one-main-room building as a fitness center. The fitness center capacity is 199 persons.

The building's use immediately before AAU occupied the property in 2000 is unknown; however, it may have been a retail store at some point. ES-16 is immediately adjacent to the AAU student housing building at 1055 Pine Street (ES-17).[591] There is no shuttle stop at the site, students walk approximately 80 feet east to the shuttle zone located in front of 1055 Pine Street (ES-17) to catch the AAU shuttle bus (Sutter Express).

The site is zoned RM-4 (Residential, Mixed, High Density) and is within the Nob Hill Special Use District. RM-4 Zoning Districts are almost exclusively high-density residential areas. Single room occupancy and student housing uses are principal permitted uses, whereas postsecondary educational institutional uses require a conditional use (CU) authorization. The height and bulk district is 65-A.

Tenant Improvements and Renovations

In 2001, the building's front windows were covered over with plywood, and an ADA accessible entrance was added in response to a Notice of Violation (NOV).[592]

Required Project Approvals

The 1069 Pine Street existing site (ES-16) would require a conditional use (CU) authorization under San Francisco Planning Code (Planning Code) Sections 209.2 and 303, and a building permit under Planning Code Section 171 to change the use from retail to postsecondary educational institutional use within a RM-4 Zoning District.

[591] *2011 IMP*, p. 81.
[592] Building Permits obtained for unspecified improvement and renovation at ES-16 are: BPA #200104247629 and #201009080457 (in response to NOV #200011566 and #201051136)

Photograph 83. 1069 Pine Street (ES-16).

Photograph 84. Mid-block Pine Street, facing southeast, toward 1055 Pine Street (ES-17).

Photograph 85. Rear yard of ES-16.

Photograph 86. Mid-block Pine Street, facing northeast.

Plans and Policies and Land Use

ES-16 is located in the Nob Hill neighborhood. The land use on Pine Street between Jones and Taylor streets is primarily residential with one retail dry cleaning operation. The surrounding buildings on the subject block range from three to 14 stories. AAU occupies the neighboring group housing building to the east at 1055 Pine Street. ES-16 is a one-story building and is used as a fitness center. Behind the building is a patio with seating, landscaping, and a shade structure.

In the vicinity of ES-16, Pine Street is a three-lane, one-way westbound street. Parallel residential parking is located on both sides of the street. A large parking garage that serves the apartment building at 1177 California Street is located directly across Pine Street from ES-16.

ES-16 is located in the Nob Hill neighborhood, which is one of San Francisco's signature neighborhoods, renowned for its landmarks, hotels, and unique position close to downtown. The Fairmount Hotel and Intercontinental Mark Hopkins Hotel, two grand and prominent San Francisco buildings, are located to the northeast. Grace Cathedral, the largest Gothic church in the West, and Huntington Park are located one block north of ES-16. The neighborhood has many historic apartment buildings with lush, impressive façades, but also includes a mix of modest apartment buildings.

The zoning near ES-16 is RM-4 (Residential, Mixed, High Density). RM-4 Zoning Districts are devoted almost exclusively to apartment buildings of high density, usually with smaller units, close to downtown. Buildings over 40 feet in height are very common, and other tall buildings may be accommodated in some instances. Despite the intensity of development, distinct building styles and moderation of façades are still to be sought in new development, as are open areas for the residents.[593] ES-16 is also located in the Nob Hill Special Use District. The Nob Hill Special Use District provides an established area with a unique combination of uses and a special identity that represents the Nob Hill neighborhood. The height and bulk district on either side of Pine Street near ES-16 is 65-A.

As noted above, use of ES-16 has been changed by AAU from retail to postsecondary educational institutional use with the building primarily being used as a student fitness center. The change in use of the existing structure involved exterior alterations: covering the front windows with plywood and adding an ADA accessible entrance.

The change in use of the site from retail to a postsecondary educational institution would require a conditional use authorization from the Planning Commission in an RM-4 Zoning District, which is devoted almost exclusively to high density apartment buildings. The change in use would not be inconsistent with any provisions of the Nob Hill Special Use District. The change in use would intensify AAU's presence in the vicinity, as the adjacent building at 1055 Pine Street is occupied by AAU and used for group housing, which represent a change the character of the neighborhood and introduce new patterns of use at the site (i.e., student populations would replace longer-term residents).

Postsecondary educational institutional use is subject to approval by the Planning Commission as a Conditional Use within an RM-4 Zoning District. ES-16 would also require a building permit

[593] Planning Code Section 209.2.

pursuant to Planning Code Section 171. Therefore the ES-16 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-16 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The change in use at ES-16 from retail to a postsecondary educational institution would have minimally changed the daytime population because the building, as a retail operation, likely had a comparable capacity. The site is used as a fitness center with users who come and go throughout the day, similar to a retail operation. Occupation by AAU may have resulted in displacement of employees; however, retail space was likely found elsewhere. Conservatively presuming that ES-16 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[594] No substantial effect on population has occurred from the change in use at ES-16.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-16 and all existing sites is discussed under the combined housing discussion, pp. 3-15 - 3-18. The change in use from retail to a postsecondary educational institution at ES-16 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-16 did not result in the displacement of housing because this site was previously used as retail.

Aesthetics

ES-16 is located in the Nob Hill neighborhood, which is one of San Francisco's signature neighborhoods, renowned for its landmarks, hotels, and unique position close to downtown. ES-16 is a one-story structure, which was built in 1921 and designed as a commercial building. The windows have been enclosed and the entire building is painted black with yellow trim around the windows and red trim under the roofline. Four street trees located along Pine Street slightly obstruct ES-16 due to its low height. ES-16 is bounded by Pine Street to the north, a building to the west, a surface parking lot serving 1055 and 1069 Pine Street to the east, and a backyard to the south.

The area is characterized by a mix of hotel, institutional, and high-density residential uses. The Fairmount Hotel and Intercontinental Mark Hopkins Hotel, two grand and prominent San Francisco buildings, are located to the northeast. Grace Cathedral, the largest Gothic church in the West, and

[594] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

Huntington Park are located one block north of ES-16. The neighborhood has many historic apartment buildings with lush, impressive façades, but also includes a mix of modest apartment buildings. Neighborhood-serving retail operations are generally located on corner intersections.

The scale of the buildings on the subject block vary greatly and range from the one-story fitness center at ES-16 to a 14-story residential high-rise on the corner of Pine and Taylor streets. A majority of the buildings are four- to five-story residential buildings. With exception of the surface parking lot at ES-16, buildings adjoin and extend to the sidewalk, creating a continuous urban façade. Due to the urban character of the neighborhood, bordering roadways carry a high volume of traffic. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-16 has caused minimal changes to the building and neighborhood character. Although the black, red, and yellow coloring are vibrant and unique compared to other nearby buildings, it is not an alteration distinctively indicative of AAU's use and does not degrade the visual quality. Other buildings on the subject block have distinctive coloring and include the use of red, green, blue, and yellow paint. No other exterior alterations related to the AAU use have been carried out at the subject property. Therefore, no substantial effect on aesthetics has occurred from the change in use at ES-16.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The one-story building at 1069 Pine Street (ES-16) has a rectangular footprint and a flat roof. The building sits at the north end of a rectangular lot, and there is no setback from the sidewalk on Pine Street. Because the lot is sloped, at the south (rear) façade, the basement level is above ground. The walls of the wood-frame structure are clad in plaster at the north (primary) façade, and wood horizontal drop siding on the west, south, and east façades. The north façade is a three-part storefront, which has been modified. Close to the center, there is a recessed entrance with a wood, three-light transom above. In the recessed entrance, there are a pair of modern glazed aluminum doors. A folding metal security gate is mounted at the front of the recessed entrance. The eastern section of this façade has a wood transom composed of eight lights, although several of the lights have been covered. These transoms are taller than those of the central entrance bay. In the western section, there is another transom composed of eight lights. These are shorter than those of the central entrance bay. Both the western and eastern sections appear to have been built as storefront windows above bulkheads. The storefront openings have been in-filled with plywood panels, some of which are irregular and project. The glazing of the transoms is textured, and some of the lights are awning sash. A simple wood cornice divides the walls above the transoms from the parapet above. There are no openings on the east façade. The west façade abuts the adjacent building and is not visible. At the basement level, there are five wood doors with simple wood trim. A wood hood is mounted above the easternmost door. The doors are not aligned and step up the slope of the lot from east to west. The trim and sills of four windows are visible, but the openings have been covered with plywood panels. At the second floor, there are five wood, double-hung windows with horns at the upper sash. The trim and sills are wood, and wood plank shutters flank the openings.

The building is used as a fitness center, and the interior is composed of one large open space which is filled with equipment. The wood post-and-lintel structure of the building is visible in the interior. The interior sides of the exterior walls are paneled with vertical and horizontal battens at the seams. The interior walls appear to be plaster, and aluminum windows provide views between the rooms. The floor is covered with rubber matting. Fluorescent lights, ceiling fans, and fire sprinklers are mounted to the drop ceiling (for representative photographs refer to Photographs 87–89).

Photograph 87. 1069 Pine Street.

Photograph 88. South and east façades, 1069 Pine Street.

Photograph 89. Interior of subject property.

Site History

Constructed in 1921, the subject property is a single-story commercial building designed by the San Francisco–based architecture firm, the O'Brien Brothers. Building permits indicate that 1069 Pine Street was commissioned by Mary Rocca. Two Mary Roccas lived in San Francisco in 1921: one, the wife of a fisherman, and the second, a widow and mother of Emilio and Mario Rocca, owners of the Rocca Brothers real estate firm. The latter Mary Rocca, the likelier of the two to have been involved in the construction of 1069 Pine Street, was born in New York ca. 1864 to Italian immigrants. She was living in San Francisco by the 1910 census, which shows that her son, Emilio, was already in the real estate business.[595] Mrs. Rocca managed residential hotels throughout the city, including the Kensington Apartments at 720 Powell Street in 1921.[596]

Available primary sources (building permits, city directories, and historic maps) and archival research (including at San Francisco Heritage and the San Francisco Public Library) indicate that 1069 Pine Street originally consisted of four individual storefronts, with addresses spanning 1069, 1071, 1073, and 1077 Pine Street. Sometime between 1950 and 1974, Sanborn Fire Insurance Company maps reveal that the property's storefronts were joined in the interior to form a single interior space. This likely occurred ca. 1954 when City directories show all of the spaces vacant. The only known use for the building between 1954 and 1971 was storage for the adjacent Callison Hospital in 1971.

The following paragraphs show how the storefronts at 1069 Pine Street were used from 1923 (the first date found in City directories) and 1953 (when all known tenants left the building and the interior space was subsequently combined).

1069 Pine Street

From 1923 to ca. 1935, 1069 Pine Street housed a dressmaking and tailor shop. Following that, it was a beauty shop until 1940, a florist until 1943, and a barber shop until 1949. The space very briefly was associated with the Royal Cheesecake Shop (1952) and the Pine Hill Gift Shop (1953).

1071 Pine Street

From 1923 to ca. 1935, 1071 Pine Street housed a milliner. This period coincides exactly with the dressmaking/tailor shop at 1069 Pine Street. The storefront use between 1936 and 1947 was either vacant or unknown. From 1948 to ca. 1953, the space was used for vending machine (musical, likely jukebox) sales.

1073 Pine Street

From 1923 to ca. 1937, 1071 Pine Street housed a barber shop. A florist operated in the space in 1939–1940; a beauty shop in 1945; and a dressmaker in 1948–1949.

---

595 Ancestry.com. *1910 and 1920 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc., 2010.

596 Ancestry.com. *U.S. City Directories, 1822-1995* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2011.

1077 Pine Street

From 1921 until ca. 1953, 1077 Pine Street housed a restaurant and delicatessen.

California Register of Historical Resources Evaluation

ES-16 does not appear eligible for the California Register of Historical Resources (CRHR) under Criteria 1, 2, or 3. In terms of Criterion 1, the property does not reflect significant development trends in this part of Nob Hill. The building at 1069 Pine Street reflects the theme of significance related to Reconstruction-era expansion, “Neighborhood Commercial Expansion, 1906-1929,” described in the 2013 *Draft Neighborhood Commercial Buildings Historic Context Statement*. However, in light of the eligibility standards described in the context statement, the property does not retain the historic integrity required to convey significance. The building at 1069 Pine Street was associated with many businesses and individuals from 1921 through 1953. Research did not reveal that any of the businesses or individuals associated with the building rise to a level of significance required for listing in the CRHR under Criterion 2. The building at 1069 Pine Street was designed by notable San Francisco architects, the O’Brien Brothers. The O’Brien Brothers completed a wide range of commissions throughout San Francisco between 1907 and 1935. They are best known in San Francisco for their many automobile-related commissions, including excellent extant examples of automobile showrooms and garages (e.g., 66 Page Street, 1641 Jackson Street, and 525 Jones Street). As a ubiquitous, 1920s commercial building, the building at 1069 Pine Street is not a distinctive or outstanding example of the O’Brien Brothers’ work, nor an outstanding or unique example of commercial architecture in San Francisco. Therefore, the building at 1069 Pine Street does not appear eligible for listing in the CRHR under Criteria 1, 2, or 3.

Conclusion

Facilities staff indicate the storefronts on the main evaluation were in-filled by AAU in 2001 and subsequently permitted in 2010.[597] However, a review of permits on file with San Francisco Department of Building Inspection failed to show conclusively that this work was covered by permit. Archival research to date has failed to identify any photographs depicting the original appearance of the storefronts or original materials/façade design configuration, or the appearance of the façade at the time of AAU occupation. Therefore, the possibility exists that the change carried out by AAU resulted in a loss of integrity for the property. Had the storefronts been intact, the property might have qualified under CRHR Criterion 1 as an exemplification of neighborhood commercial development in Nob Hill.

The project completed by AAU may have resulted in the removal, damage, and/or destruction of extant character-defining features and would therefore not comply with the Secretary of the Interior’s Standards for the Treatment of Historic Properties (SOIS). Should it be determined that the property retained those character-defining features (original windows, bulkheads, or doors) that would have made it eligible for CRHR listing, SOIS compliance could be achieved through the removal of infill and the restoration of the original rhythm and character of the façade according to documentary evidence.

[597] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Archaeology and Paleontology

Building alterations at ES-16 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-16 is located on the south side of Pine Street between Taylor and Jones streets in the Nob Hill neighborhood. The approximate 1,875-square-foot, one-story structure built in 1921 was once used as retail space and was occupied by AAU in 2000. AAU currently uses the building for a fitness center that is open to all AAU students, including those residing in the adjacent building at 1055 Pine Street (ES-17).

An eight-space parking lot is provided at the rear of this site, and there are about five off-street parking spaces adjacent to the 1055 Pine Street site (ES-17). These parking spaces are used by Sodexo food service staff, maintenance personnel, and athletics staff. The driveway is located east of the site at 1055 Pine Street (ES-17). The primary pedestrian entrance is on Pine Street, and four secondary entrances are in the back of the building. There is a gate on Jones Street for an easement to the adjacent 1055 Pine Street site (ES-17). There is a bicycle rack with eight spaces in the rear courtyard of ES-16 that is associated with the student housing use in the adjacent building (ES-17). No AAU shuttle stop is provided at this site; however, one shuttle bus route (Sutter Express) stops at the 40-foot-long white shuttle zone located in front of the adjacent 1055 Pine Street site (ES-17), approximately 30 feet east.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, this AAU site generates approximately eight person trips (three inbound trips and five outbound trips). All of these trips are between this site and 1055 Pine Street (ES-17). In addition, this site generates one vehicle trip during the weekday PM peak hour.

Traffic

ES-16 and 1055 Pine Street (ES-17) are immediately contiguous. These AAU sites are served by Pine Street, Jones Street, and Taylor Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: the two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The characteristics of the streets in the vicinity of these eight sites are discussed in detail in the analyses of ES-11 and ES-12. The characteristics of the streets immediately adjacent to ES-16 are summarized here from that detailed description, along with a description of Taylor Street. Transit and shuttle traffic are discussed in the Transit and Shuttle subsections, below.

Jones Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Jones Street has three southbound lanes and metered parking on both sides of the street.

Pine Street is an east-west residential throughway that runs between Presidio Avenue and Montgomery Street. In the vicinity of this AAU site, Pine Street has three westbound lanes and 2-hour time-restricted parking on both sides of the street. The parking lane along the south curb converts into a vehicle travel lane during the PM peak period between 3:00 p.m. and 6:00 p.m., increasing the total number of travel lanes to four during this period. The *San Francisco General Plan* classifies Pine Street as a Major Arterial in the CMP Network. Pine Street is designated as a High Injury Corridor in the City's Vision Zero network.

Taylor Street is a north-south street that runs between The Embarcadero and Market Street. In the vicinity of the AAU sites, Taylor Street has three northbound lanes and metered parking on both sides of the street.

The student amenities and associated staff at ES-16 generate one PM peak hour vehicle trip to adjacent streets, and the adjacent 1055 Pine Street (ES-17) site is not expected to generate any additional vehicle trips. Therefore, traffic operating conditions in the vicinity have not been altered by the residential amenity use at this site. The project driveway and associated parking is further discussed in the Pedestrian and Parking sections below.

Transit

The fitness center at ES-16 generates four PM peak hour transit trips. The amenities are primarily used by students residing at 1055 Pine Street (ES-17). ES-16 is generally served by Muni bus lines 2-Clement and 3-Jackson on Sutter Street and 27-Bryant on Bush Street. These routes provide further connections to Muni rail service on Market Street. The transit stop nearest ES-16, for Muni bus line 27-Bryant, is at the Bush Street/Jones Street intersection, approximately 750 feet to the south. This stop has a shelter and signage with transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). The AM, midday, and PM frequencies of this line, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 70. The San Francisco Municipal Transportation Agency (SFMTA) operates six additional Muni bus routes (1AX-California "A" Express, 1BX-California "B" Express, 31AX-Balboa "A" Express, 1BX-Balboa "B" Express, 38AX-Geary "A" Express and 38BX-Geary "B" Express) along Pine Street, but they do not stop in the vicinity of this AAU site (these bus lines on Pine Street provide express service between downtown and the Richmond District during the PM peak hours).

As stated above, the fitness center at ES-16 generates four PM peak hour transit trips. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased demand, even in combination with the 129 transit trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit service in the area. There is no existing shuttle stop provided at this site; thus AAU shuttle service has not substantially conflicted with the operation of transit vehicles.

Table 70. 1069 Pine Street (ES-16)– Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/ 8th	46%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

Shuttle

The gym at ES-16 generates one PM peak hour shuttle trip. AAU shuttle route Sutter Express currently runs adjacent to the site on Pine Street, but no shuttle stop is provided at ES-16.[598] Instead, students walk approximately 80 feet east to the shuttle zone in front of 1055 Pine Street (ES-17) to catch the Sutter Express. No service was provided along Pine Street in 2010, but the Sutter Express route was rerouted in 2015 to serve 1055 Pine Street (ES-17).

Pedestrian

The fitness center at ES-16 generates approximately seven pedestrian trips during the PM peak hour: two walking, four transit, and one shuttle service trip. Bush and Pine streets are both designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[599] Intersections near this site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Pine Street/Jones Street and Pine Street/Taylor Street intersections have pedestrian crossing signal heads. Sidewalks along Jones Street, Pine Street, and Taylor streets are approximately 12, 12, and 16 feet wide, respectively. There is a curb cut and shared driveway located on the adjacent AAU site at 1055 Pine Street (ES-17). The driveway and related parking behind the two buildings is used by Sodexo food service staff, maintenance personnel, and athletics staff frequently throughout the day. The primary pedestrian access to this site is from Pine Street through the central doorway. There are four secondary entrances in the back of the building for access to storage rooms and the stairs leading to

[598] Sutter Express travels northbound on Taylor Street, turns left on Pine Street, turns left on Jones Street, traveling only one block on Pine Street.
[599] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

upper floors. There is also a secondary pedestrian access from Jones Street toward the rear of the property for an easement to 1055 Pine Street (ES-17).

Pedestrian volumes were observed to be generally low in the vicinity of the site and pedestrians were observed to move freely in the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of ES-16. No instances of pedestrian-vehicle conflicts at the driveway (curb cut) or crosswalk locations were observed.[600] The seven pedestrian trips at ES-16 and 91 pedestrian trips for the adjacent 1055 Pine Street site (ES-17) have increased pedestrian volumes in the area, but they are accommodated on the adjacent pedestrian facilities (12-foot-wide sidewalks along Pine Street).

Bicycle

The fitness center at ES-16 generates less than one PM peak hour bicycle trip. Pine Street is not a designated bicycle route. However, Route 310 on California Street is located within one block, and Route 16 on Sutter Street is located within two blocks of the site. There is one eight-space bicycle rack (Class II) in the rear courtyard of the building that is used by students residing in the adjacent 1055 Pine Street site (ES-17).[601] This bicycle rack is poorly placed along the west side of the courtyard (away from the driveway) and is too close to adjacent tables and chairs, making its location ineffective. This site does not generate any bicycle parking demand, and no additional bicycle parking is required for this site.

Loading

The AAU fitness center at ES-16 generate limited freight loading activities (less than one daily truck trip). The site includes an eight-space parking lot at the rear of the site (and adjacent parking at 1055 Pine Street [ES-17]), but currently commercial vehicles are not allowed to use these spaces. Due to the residential nature of Pine Street, no on-street freight loading (yellow) zones are adjacent to or near the site.

Field observations of Pine Street activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU-related freight/delivery vehicles or related activities occurred on Pine Street during the observation period. Commercial deliveries to this site as well as the adjacent AAU residential site (ES-17) have access to the rear parking area; however, instead of driving down the driveway, commercial deliveries trucks typically park on the street and then carry deliveries down the driveway on dollies due to previous noise complaints from neighbors. General commercial activity in the area is related to residential deliveries. Due to the low daily delivery activity as noted during site visit and low traffic volumes in the area during the weekday midday period, loading demand is likely accommodated on the street near the site. A recommended Condition of Approval is identified to allow commercial vehicle deliveries to use the 1055/1069 Pine Street driveway and vehicle areas for loading/unloading activities, if feasible given the possible operational and safety impacts. The driveway is currently gated, so modifications to the gate system may be required to accommodate this traffic.

[600] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.
[601] Bicycle parking data was provided by AAU and verified by Planning Department and CHS staff.

Although commercial parking may be limited in the site vicinity, the low daily delivery activity and loading demand related to the AAU postsecondary educational institutional use has not substantially altered commercial loading conditions in the vicinity

Garbage collection at this site occurs on the south side of Pine Street, next to the entrance for the site. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection on Pine Street occurs six times a week in the early morning hours.

Parking

The fitness center at ES-16 generates one PM peak hour vehicle trip and demand for less than one daily average parking. As discussed above, ES-16 shares a driveway with the adjacent 1055 Pine Street (ES-17). The driveway leads to an eight-space parking lot in the back of this site and to an approximately five-space parking aisle along the western frontage of 1055 Pine Street (ES-17). The parking lot and the five parking spaces are used by Sodexo food service staff, maintenance personnel, and athletics staff. Three of the eight parking spaces are reserved for use by Sodexo trucks. Although the site does not result in a regular increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. As presented in Table 60 above under 1153 Bush Street (ES-11), on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east and Post Street to the south was observed to be moderate to high, averaging about 86 percent during the midday period. Parking occupancy in the immediate vicinity of this AAU site (and the adjacent 1055 Pine Street site [ES-17]) was 63 to 80 percent along Pine Street between Jones and Taylor streets. The postsecondary educational institutional use at this AAU site, in combination with the residential use at the adjacent site at 1055 Pine Street (ES-17), is not expected to have substantially altered parking conditions in the area.

Emergency Vehicle Access

San Francisco Fire Department Station #41 (1325 Leavenworth Street) is the closest station to ES-16, approximately 0.3 mile north of the site. From the station, vehicles are able to access the AAU site via Jones and Pine streets and would be able to park along Pine Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-16 include a lack of commercial loading areas. To address this constraint, the following condition is recommended for consideration by decision makers:

Recommended Condition of Approval, ES-16: TR-1, Commercial Vehicle Access. All commercial vehicle deliveries should be allowed to use the 1055/1069 Pine Street driveway and parking areas, taking into account possible operational and safety considerations. The driveway is currently gated, so modifications to the gate system may be required to accommodate this traffic.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 1069 Pine Street site (ES-16) is located on the south side of Pine Street between Taylor and Jones streets in the Nob Hill area. The approximately 1,875-square-foot, one-story structure was at one time used as retail space and was occupied by AAU in 2000. AAU currently has amenities including a fitness center for the students residing in the adjacent building at 1055 Pine Street (ES-17). The residential amenities at the 1069 Pine Street site do not generate any shuttle trips, as it contains supporting uses to 1055 Pine Street next door. Vehicular traffic noise at ES-16 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 10 trips per day.[602] According to the San Francisco Transportation Noise Map,[603] the existing traffic noise level near ES-16 from vehicular traffic along Pine Street was approximately 74 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by AAU occupation of ES-16 contribute approximately 33.3 dBA L_{dn} to local traffic noise levels. When the ES-16 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-16 has not substantially increased vehicular traffic noise in the vicinity.

AAU did not install or modify any existing rooftop mechanical equipment at ES-16. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-16 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-16 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-16.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (recreation) at ES-16, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2000, when AAU occupied the building. Area sources were estimated based on a 1,875-square-

[602] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[603] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 10 round trips per day. There are no on-site generators or boilers at ES-16. Table 71 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-16, which are all shown to be below the BAAQMD daily and annual significance thresholds.

Table 71. 817–832 Sutter Street (ES-16) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Energy	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	0.22	0.28	0.05	0.02	0.04	0.05	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
1. Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.
ROG = reactive organic gases; NOx = nitrogen oxides; PM_{10} and $PM_{2.5}$ = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-16 is not one of those sites; therefore, AAU occupation of ES-16 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. The City's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-16 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with

Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-16 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-16: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-16 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-16.

Recreation

The building at 1069 Pine Street (ES-16) is a one-story, 1,875-square-foot building with one main room dedicated to an indoor fitness center. Visitors to and employees of the fitness center come and go throughout the day and do not represent a large permanent population in the community. ES-16 reduces recreational demand on public parks and other recreational facilities created by AAU's population of students and staff. Should visitors and employees seek other recreation opportunities besides the fitness center, there are two publicly-owned facilities located within 0.25 mile of 1069 Pine Street (ES-16): Collis P. Huntington Park and Hooker Alley Community Garden, as shown on Figure 4, p. 3-63. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[604] Hooker Alley Community Garden (also known as Nob Hill Community Garden), is operated by volunteers and allows its members to grow produce

[604] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.

and ornamental plants.[605] Other publicly owned parks are within a 0.5-mile distance of ES-16, including Union Square, the Chinese Recreation Center, and Father Alfred E. Boeddeker Park.

As described in Population and Housing on p. 4-392, the change in use from retail to a postsecondary educational institution at ES-16 does not represent a substantial change in the daytime population of the area. ES-16 is itself a recreational facility, and would not be expected to generate demand for other recreational opportunities. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-16 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous retail land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[606] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-16. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[607] No substantial effect on wastewater has occurred from the change in use.

---

605 San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.

606 San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

607 SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-16 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[608] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[609] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-16 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[610] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The change in use from retail to a postsecondary educational institution within a RM-4 Zoning District would not represent a substantial change in the population of the area, as the population of the previous use as a retail building would be similar to that of a student fitness center where patrons come and go throughout the day. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any

[608] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[609] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[610] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-16.

Fire and Emergency Services

ES-16 is located within 2,000 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[611] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[612]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-16 meet the Citywide emergency transport goals.

As described above on p. 4-392, the change in use from retail to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-16.

Libraries

The nearest public library to ES-16 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU’s private library for use by its students and faculty, which augments the public library’s services.

As described above on p. 4-392, the change in use from retail to a postsecondary educational institution would not represent a substantial change in the daytime population of the area. If patrons were to use a public library, it would likely be a library within close proximity to their residence. Therefore, no substantial effect from the change in use on library services has occurred.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco’s public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

---

[611] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[612] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

The change in use from retail to a postsecondary educational institution would not affect nearby schools, as the principal use of the building is a student fitness center. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). The change in use at ES-16 would not have any noticeable effect on nearby schools.

Biological Resources

ES-16 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-16. ES-16 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use of ES-16.

Geology and Soils

ES-16 is underlain by a variable thickness of artificial fill that overlays well-sorted, fine to medium grained dune sands. The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable and overlays bedrock. At the property and immediate vicinity, atop the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is approximately 16 to 36 feet below ground surface and flows south and southeast, corresponding to surface topography.[613] Because building alterations undertaken by AAU were interior or limited to minor exterior modifications including, with no substantial changes to soil or topography have occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-16 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake originating from the Hayward Fault.[614, 615] ES-16 is not located within a liquefaction zone.[616] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-16 is one-story and composed of wood with a stucco façade. ES-16 is not made of unreinforced masonry

613 Geologica, Inc,. Phase I Environmental Site Assessment for 1069 Pine Street, May 2003.

614 San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

615 San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

616 San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

and does not have a soft story.[617, 618] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the building alterations carried out after the change in use from retail to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-16 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., window coverings and ADA entrance). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-16 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[619] ES-16 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-16.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-16 identified a closed-in-place underground storage tank that was in accordance with local regulations and had no associated soil or groundwater contamination. No significant historic use of hazardous materials was noted during the ESA.[620] Building alterations undertaken at the site by AAU involved minimal earth movement associated with landscaping; however, it is unlikely that buried hazardous materials could have been exposed, as no contamination is present at the site.[621]

[617] City and County of San Francisco, UMB – All Report, December 1, 2014.
[618] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.
[619] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[620] Geologica, Inc., Phase I Environmental Site Assessment for 1069 Pine Street, May 2003.
[621] Geologica, Inc., Phase I Environmental Site Assessment for 1069 Pine Street, May 2003.

The date of the building's construction, 1921, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[622] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-16 is used as a fitness center. Hazardous materials that are used, stored, and disposed of at ES-16 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects on mineral resources or mineral recovery sites have occurred as a result of the change in use of ES-16.

Tenant improvements at ES-16 associated with the conversion of retail space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-403 4-404. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[623] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-16, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at nearby 1055 Pine Street (ES-17). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-16 has not resulted in the use of large amounts of energy, fuel, or water, or in the use these resources in a wasteful manner.

Therefore, the change in use at ES-16 has not had a substantial effect on mineral or energy resources.

---

[622] Geologica, Inc., Phase I Environmental Site Assessment for 1069 Pine Street, May 2003.
[623] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1069 Pine Street, March 4, 2016.

Agricultural and Forest Resources

ES-16 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[624] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-16 has had no substantial effects on agriculture or forest resources.

[624] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.15. 1055 Pine Street (ES-17)

Property Information

The 1055 Pine Street existing site (ES-17) is a five-story, 36,213-square-foot building constructed in 1910, located on Pine Street between Jones and Taylor streets in the Nob Hill neighborhood (Photographs 90–93). The site is Lot 009 in Assessor's Block 0275. As Academy of Art University's (AAU's) "Auguste Rodin Dormitory,"[625] the building features 81 group-housing rooms and a capacity of 155 beds.

ES-17 had previously been used as a hospital and was later converted to an elder care facility associated with the Saint Anthony Foundation as a residential hotel, before AAU occupied the property in 2000. The last legal use was a residential hotel with 59 rooms. AAU currently uses the site as an 81-room student housing building that has a computer lab, café, lounge, and recreation room. The Sutter Express AAU shuttle bus uses the existing 40-foot-long white passenger loading zone located in front of the site on Pine Street. Figure 12, ES-16 and ES-17: 1069 and 1055 Pine St – Existing Condition, in Appendix TDM, shows the site with the shuttle zone in front.

The site is zoned RM-4 (Residential, Mixed, High Density) and is within the Nob Hill Special Use District. RM-4 Zoning Districts are almost exclusively high-density residential areas. Single room occupancy and student housing are principally permitted uses, postsecondary educational institutional uses require a conditional use (CU) authorization. The height and bulk district is 65-A.

Tenant Improvements and Renovations

AAU made changes to the building's exterior including removing a sign and installing a security fence along the south property line in 2000. AAU also installed lighting and painted the AAU logo and "Café Rodin" on the southwest side of building. AAU installed a black security gate in the driveway. In 2003 and 2004, AAU also installed a new fire alarm system and modified an existing partial sprinkler system to full operation.[626] A small awning and bordering light fixtures were installed at the side door of the west elevation without building permits. Security cameras were added without building permits on the primary and secondary elevations.

Required Project Approvals

The 1055 Pine Street existing site (ES-17) would require a legislative amendment to San Francisco Planning Code (Planning Code) Section 317(f)(1), the Student Housing Legislation, to allow for conversion of residential units to student housing; a building permit under Planning Code Section 171; and CU authorization under Planning Code Sections 209.2 and 303 to change the use from group housing to student housing (group housing for a postsecondary educational institution) within a RM-4 Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review.

[625] *2011 IMP*, p. 96.
[626] Building Permits obtained for the improvements and renovations at ES-17 are: BPA #200406237195 (fire alarm system), #200309306141 (modifications to partial sprinkler system), #200012067337 and #200905158489 (new fence), and #201003319390 (sign removal).

Photograph 90. 1055 Pine Street (ES-17).

Photograph 91. Mid-block Pine Street, facing southeast.

Photograph 92. Mid-block Pine Street, facing northwest.

Photograph 93. Mid-block Pine Street, facing northeast.

Plans and Policies and Land Use

ES-17 is located in the Nob Hill neighborhood. The land use on Pine Street between Jones and Taylor streets is primarily residential with one commercial dry cleaning operation. The surrounding buildings on the subject block range from three to 14 stories. AAU occupies the neighboring building to the west at 1069 Pine Street, which is used as a student fitness center. ES-17 is five stories, built in 1910, and was previously used for group institutional housing, later restricted to elder care associated with the Saint Anthony Foundation. ES-17 is known as the “August Rodin Dormitory” and has 81 group-housing rooms and a café that is located in the southwestern portion of the building.

In the vicinity of ES-17, Pine Street is a three-lane, one-way westbound street. Parallel residential parking is located on both sides of Pine Street. A large parking garage that serves the apartment building at 1177 California Street is located directly across Pine Street from ES-17.

The zoning near ES-17 is RM-4 (Residential, Mixed, High Density). RM-4 Zoning Districts are devoted almost exclusively to apartment buildings of high density, usually with smaller units, close to downtown. Buildings over 40 feet in height are very common, and other tall buildings may be accommodated in some instances. Despite the intensity of development, distinct building styles and moderation of façades are still to be sought in new development, as are open areas for the residents.[627] ES-17 is also located in the Nob Hill Special Use District. The Nob Hill Special Use District provides an established area with a unique combination of uses and a special identity that represents the Nob Hill neighborhood.[628] The height and bulk district on either side of Pine Street near ES-17 is 65-A.

As noted above, use of ES-17 has been changed by AAU from a residential hotel to student housing (group housing for a postsecondary educational institution) use and café. The change in use of the existing structure involved some exterior alterations including the installation of lighting, a gate, and the painting of an AAU logo and “Café Rodin” on the southwestern façade of the building.

The change in use of the site from a residential hotel to student housing (group housing for a postsecondary educational institution) conflicts with the Planning Code and requires a legislative amendment for conversion of residential units to student housing. Student housing (group housing for a postsecondary educational institution) is allowed up to one bedroom per 140 square feet of lot area. The change in use would not be inconsistent with any provisions of the Nob Hill Special Use District. The change in use would intensify AAU’s presence in the vicinity, as the adjacent building at 1069 Pine Street is owned and occupied by AAU and used as a student gymnasium. The intensification could change the character of the neighborhood and introduce new patterns of use at the site (i.e., student populations would replace longer-term residents).

The change in use of the site from residential to student housing (group housing for a postsecondary educational institution) would conflict with the Planning Code because it would require a legislative amendment for conversion of residential units to student housing. The legislative amendment could be inconsistent with General Plan policies relating to displacement of affordable housing or residential hotel uses and policies to avoid conversion of such affordable housing uses.

[627] Planning Code Section 209.2.
[628] Planning Code Section 238.

ES-17 would require a building permit pursuant to Planning Code Section 171 and a Legislative Amendment to Planning Code Section 317(f)(1), Student Housing Legislation. Therefore the ES-17 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-17 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-17 is 155 residents (81 group-housing rooms). The change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) would not substantially alter the daytime population of the building because the previous use as elderly housing would have had a comparable capacity. However, the AAU rooms generally contain two beds, whereas elderly housing would have likely contained one resident per room. Therefore, student housing (group housing for a postsecondary educational institution) could have a slightly higher population density compared to the previous use. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-17 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[629]

Given the close proximity of other AAU student housing locations at 1080 Bush Street and 1153 Bush Street, the neighborhood population of AAU students is relatively high (approximately 314 student residents) on Pine and Bush streets, between Jones and Mason streets. An AAU building with a gymnasium is also located adjacent and to the west at 1069 Sutter Street. The student population would be typical of an urban neighborhood with a mix of populations and uses.

The site is located within a Priority Development Area (PDA) identified in ABAG's *Plan Bay Area*.[630] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[631] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable city center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-17.

---

[629] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

[630] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.

[631] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-17 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18.

The change in use at ES-17 from residential hotel to student housing (group housing for a postsecondary educational institution) has incrementally intensified housing demand created by AAU students and faculty/staff, as group-housing units were converted to student housing and these units were removed from the housing market. The change of use at ES-17 could have resulted in displacement of people and existing housing units; however, the previous use as 59 group-housing rooms would not establish the need to construct replacement housing elsewhere. All former residents of the building moved to housing elsewhere. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing likely would not have the density that student housing provides (average of 280 square feet per resident). However, conversion of rental units is not consistent with the San Francisco General Plan Housing Element Policy 3.1., intended to preserve rental units, especially rent controlled units, to meet the City's affordable housing needs. ES-17 provides 155 beds of the 1,810 beds that AAU provides for students and supplements some housing demand created by AAU.

Due to the conversion of group housing units, the change in use is subject to Planning Code Section 317(b)(1), which indicates that the change of occupancy from a dwelling unit, group housing, or single-room occupancy (SRO) to student housing is considered a conversion of a residential unit. Planning Code Section 317(f)(1) prohibits the conversion of a residential unit to student housing. The intent of the Student Housing Legislation is to preserve rent-controlled housing and permanently affordable residential hotels and single-room occupancy units.

Aesthetics

ES-17 is located in the Nob Hill neighborhood, which is one of San Francisco's signature neighborhoods, renowned for its landmarks, hotels, and unique position close to downtown. ES-17 is five stories tall, was built in 1910, and is an excellent example of Classical Revival architecture. The building has bay windows on the top floor, vertical marble stone between window bays, and a red granite base. Four small street trees are located along Pine Street, but do not obstruct views of the building. ES-17 is bounded by Pine Street to the north, a building to the east, a surface parking lot serving 1055 and 1069 Pine Street to the west, and the backyards of neighboring properties to the south.

The area is characterized by a mix of hotel, institutional, and high-density residential uses. The Fairmount Hotel and Intercontinental Mark Hopkins Hotel, two grand and prominent San Francisco buildings, are located to the northeast. Grace Cathedral, the largest Gothic church in the West, and Huntington Park are located one block north of ES-17. The neighborhood has many historic apartment buildings with lush, impressive façades, but also includes a mix of modest apartment buildings. Neighborhood-serving retail operations are generally located on corner intersections.

The scale of the buildings on the subject block varies greatly and ranges from the one-story gymnasium at 1069 Pine Street to a 14-story residential high-rise on the corner of Pine and Taylor streets. A majority of the buildings are four- to five-story residential buildings. With the exception of the surface parking lot at ES-17, buildings adjoin and extend to the sidewalk, creating a continuous urban façade. Due to the urban character of the neighborhood, bordering roadways carry a high volume of traffic. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The change in use at ES-17 has caused minimal changes to the building and neighborhood character. No exterior alterations along the Pine Street frontage are indicative of the AAU use. The painting of a small AAU logo and "Café Rodin" on the southwestern façade of the building is only visible by a small number of nearby residents whose windows overlook the southwestern side of ES-17. Therefore, no substantial effect on aesthetics has occurred from the change in use at ES-17.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

Located in Nob Hill, 1055 Pine Street (ES-17) was originally constructed as a mid-rise hospital building in 1910. T-shaped in plan, the building occupies a sloped, rectangular lot. The primary elevation faces Pine Street, with the entrance set flush to the sidewalk, elevated on a marble-clad foundation. A driveway on the western side of the lot leads to the rear of the building. The building displays a symmetrical design composition and Classical Revival–inspired ornamental program. The building is capped with a flat roof, which terminates in a decorative cornice and shallow overhanging eaves, accented beneath with a continuous dentil course. Original features on the façade include the rhythmic fenestration pattern (though the glazing itself is non-original), with bands of windows defining each floor, separated by spandrel panels. The two-part vertical design composition, with uniform façade treatment through the first five stories, and a more articulated ornamental program and detailing on the top story, is also original to the building.

The first floor on the primary elevation displays a ground-level polished red granite base (a non-original material) and a recessed main entry with a polished red granite surround (also non-original). Fenestration consists of bands of aluminum-frame awning casement windows. Each window has a clearly defined sill and lintel. The fifth story is delineated by a decorative projecting band below and cornice above. A series of aluminum-frame awning-casements, flanked by two bay windows, extend across the fifth story. A fire stair has been added to the eastern corner of the elevation with two personnel doors leading to the sidewalk. A rolling metal gate has been installed in front of the driveway on the western side of the lot. The full-length marble piers spanning the building, as well as the red polished granite and marble at the building foundation and entrance, represent alterations to the original design. In addition, the original wood windows were removed and replaced in 1966, in work overseen by San Francisco architect George Adrian Applegarth. A Bay Area native born in Oakland in 1875, Applegarth was a long-time resident and practitioner in San Francisco. He designed numerous commissions throughout San Francisco during his long career, including residential, commercial, and institutional designs.

The treatment of the façade is mirrored on the east and west elevations, in terms of materials and fenestration patterns. Toward the south, the building extends in a stepped-in wing with aluminum-framed awning casements. Side elevations reveal areas with board-form concrete, covered in stucco.

The south and rear elevations have two sets of stacked bay windows with a central door on each floor, connected by a fire escape. Side elevations display fenestration in a variety of patterns and configurations, including rectangular and square aluminum awning casements and double-hung and fixed windows.

Numerous alterations have occurred throughout the interior of the building. Original features remaining on the interior include the marble staircase with metal banister and wood hand rail. On the upper floors, fluorescent lights, tile floors, and new doors have been installed (for representative photographs refer to Photographs 94–96).

Photograph 94. 1055 Pine Street.

Photograph 95. 1055 Pine Street, northeast perspective, west elevation.

Photograph 96. Interior view of the subject property.

Site History

The property was originally constructed in 1910 as the McNutt Hospital, which was owned and operated by Dr. William Fletcher McNutt. A pioneering medical professional in San Francisco, McNutt was "a gold rush immigrant to San Francisco, and a distinguished leader" in San Francisco's medical profession at the time:[632]

His prominence in the community is exemplified by his construction of this relatively large hospital building as a privately owned facility, rather than one supported by a larger foundation or institution. Dr. McNutt, elderly by the time this hospital was erected, was well known and respected for his "old time" manners and wardrobe.[633]

A native of Canada, McNutt trained at Harvard and the University of Vermont; before moving to San Francisco, he served in the Civil War as a member of Union Navy forces.[634] After moving to San Francisco, Dr. McNutt practiced in the City for nearly 60 years, from 1868 until his death in 1924.[635] Prior to the 1906 Earthquake and Fire, he owned a hospital at Sutter Street and Van Ness Avenue; however, as the 1906 Earthquake and Fire ravaged the city, the hospital was dynamited as "part of attempts to stop the post-earthquake fire."[636]

The McNutt Hospital functioned as a privately owned institution only for a short period of time, until it went bankrupt in 1912. McNutt sold the hospital in 1915 to a consortium of local doctors, and at least a portion of the building continued to serve its original purpose until the 1970s. By this time, the facilities were adapted and 1055 Pine Street (at least in part) became an independent living

[632] Mellon, Knox, State Office of Historic Preservation, 26 June 2002, Letter to Kenneth Spisak, Environmental Coordinator, Cingular Wireless. On file with Northwest Information Center.
[633] Ibid.
[634] Ibid.
[635] Ibid.
[636] Ibid.

facility, operated by the Saint Anthony Foundation, which remained in the building until the late 1990s.

The building served its original purpose for decades, though it appears to have changed ownership on several occasions. It also appears that multiple tenants offered medical-related services from the building over the years. By 1917, the address served as the location for Fairmont Hospital. By 1925, it had become the Morton Hospital, owned by Dr. A.W. Morton (as of 1917, Morton Hospital had occupied space at 775 Cole Street). As of 1948, 1055 Pine Street housed the St. John Hospital. In the postwar period, two institutions occupied space in the building: the San Francisco Polyclinic Hospital, as early as 1952 and through at least 1974, and the Callison Memorial Hospital, operated by Dr. F.W. Callison, which occupied space in the building as early as 1959 and through 1966. In 1966, a $65,000 remodel carried out by architect George Adrian Applegarth was commissioned by the Callison Memorial Hospital. The independent living facility, the Saint Anthony Foundation, occupied the building from the 1970s through the late 1990s.

California Register of Historical Resources Evaluation

In 2002, 1055 Pine Street (ES-17) was formally determined eligible for the National Register of Historic Places (NRHP), through the National Historic Preservation Act Section 106 (Section 106) review process, and subsequently listed in the California Register of Historical Resources (CRHR). The property was found to qualify under three NRHP criteria: for its association with the history of medical facilities in San Francisco (Criterion A); for its association with Dr. William Fletcher McNutt, "a prominent physician, faculty member, and distinguished leader in the local medical profession as well as business and politics" (Criterion B, period of significance, 1910–1915); and for its "artistic design and use of reinforced concrete" (Criterion C).[637]

The property is also CRHR eligible as an early institutional/medical facility constructed in the immediate post-1906 Earthquake and Fire reconstruction era in Nob Hill (Criterion 1) and as a Classical Revival–style institutional/medical facility (Criterion 3). When constructed in 1910, this hospital replaced the owner's earlier, also privately owned facility, which was purposely dynamited during the 1906 Earthquake and Fire in an attempt to slow the fire's advance. The period of significance for both criteria spans the building's service as a Nob Hill hospital facility (1910 to ca. 1970).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[638] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

At the time of the Section 106 process, resulting in a determination of NRHP eligibility for the property (and subsequent CRHR listing), the alterations noted in this study had already been carried

[637] Mellon, Knox, State Office of Historic Preservation, 26 June 2002, Letter to Kenneth Spisak, Environmental Coordinator, Cingular Wireless. On file with Northwest Information Center.

[638] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

out and were disclosed at that time (these included the non-original aluminum-frame windows; full-length, vertical marble piers on the façade; and marble foundation/entrance sheathing). No significant alterations appear to have occurred in the intervening years since the 2002 finding. The subject property retains integrity and remains NRHP and CRHR eligible.

Character-Defining Features Summary

Exterior

- Mid-rise height, rectilinear building plan, set flush with the sidewalk
- Rhythmic, symmetrical design composition
- Flat roof with no eaves on side elevations
- Shallow overhanging eaves, trimmed with Classical Revival–style cornice, accented with dentil course
- Articulated upper story, with flanking bay windows
- Fifth floor delineated by a projecting, ornamental band below and cornice above

Interior

- Spatial configuration/relationship of public and private spaces
- Decorative stair rail and marble stairs

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features.

Security Fence: The project complies with Rehabilitation Standard No. 2. The security fence does not obscure any of the building's character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Security Fence: The project complies with Rehabilitation Standard No. 3. The fencing is clearly modern and does not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of security cameras resulted in minimal damage to historic wall materials, and the property retains its distinctive materials, features, and finishes.

Security Fence: The project complies with Rehabilitation Standard No. 5. The installation of the security fence resulted in minimal damage to historic wall materials, and the property retains its distinctive materials, features, and finishes.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Security Fence: The project complies with Rehabilitation Standard No. 9. The security fence is compatible in scale and appearance, and does not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Security Fence: The project complies with Rehabilitation Standard No. 10. The security fence is compatible in scale and appearance, does not obscure character-defining features, and its removal would not impair the essential form and integrity of the property

Conclusion

The existing site complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-17 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-17 is located on the south side of Pine Street between Taylor and Jones Streets in the Nob Hill neighborhood. The five-story, approximately 36,213-square-foot building was built in 1910 as a hospital and converted to an elder care facility in the 1970s. AAU acquired the site in 2000 and currently uses the site for student housing, with 81 group-housing units and a total of 155 beds. ES-17 also has residential amenities, including a café.

There are about five off-street parking spaces along the western edge of the building, in addition to eight parking spaces behind the adjacent 1069 Pine Street building (ES-16). These parking spaces, accessed through the shared driveway from Pine Street, are regularly used by Sodexo food service staff, maintenance personnel, and athletics staff. There are four pedestrian entries to the building: one main pedestrian entry along Pine Street, a second doorway on Pine Street, and two secondary entries along the adjacent driveway. The second doorway on Pine Street provides direct access to café/kitchen area, and the two secondary doorways provide access to the mezzanine level of the building. There is no bicycle parking on site, but the eight-space bike rack located in the rear of the adjacent 1069 Pine Street (ES-16) is provided for the use of students residing in ES-17. The AAU Sutter Express shuttle route uses the 40-foot-long white zone in front of the site.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, this AAU site generates approximately 95 person trips (44 inbound trips and 51 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-17 is served by Pine Street, Bush Street, Jones Street, and Taylor Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The surrounding roadways are discussed in detail above under 1153 Bush Street (ES-11), 1080 Bush Street (ES-12), and 1069 Pine Street (ES-16). The characteristics of the roadways adjacent to ES-17 are summarized here. Transit and shuttle traffic are discussed below in the Transit and Shuttle subsections.

Jones Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Jones Street has three southbound lanes and metered parking on both sides of the street.

Pine Street is an east-west residential throughway that runs between Presidio Avenue and Montgomery Street. In the vicinity of this AAU site, Pine Street has three westbound lanes and 2-hour time restricted parking on both sides of the street. The parking lane along the south curb converts into a vehicle travel lane during the PM peak period between 3:00 p.m. and 6:00 p.m., increasing the total number of travel lanes to four during this period. The *San Francisco General Plan* classifies Pine Street as a Major Arterial in the CMP Network. Pine Street is designated as a High Injury Corridor in the City's Vision Zero network.

Taylor Street is a north-south street that runs between The Embarcadero and Market Street. In the vicinity of the AAU sites, Taylor Street has three northbound lanes and metered parking on both sides of the street.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. In the vicinity of ES-17, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City's Vision Zero network.

The student housing use at ES-17 is not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles, while the adjacent 1069 Pine Street (ES-16) is expected to generate approximately one PM peak hour vehicle trip. Even with the addition of one vehicle trip generated from the adjacent AAU use, traffic operating conditions in the vicinity have not been altered as a result of AAU's use of ES-17.

The site includes a curb cut/driveway that provides access to five off-street parking spaces along the western edge of the building and to an eight-space parking lot in the rear of the adjacent 1069 Pine Street (ES-16). These parking spaces are used by food service staff, maintenance personnel, and athletics staff. Potential conflict at the driveway is low due to limited vehicle activity at the site and low traffic volumes on Pine Street.

Transit

The AAU student housing use at ES-17 generates approximately five transit trips during the PM peak hour, with two trips in the inbound direction and three trips in the outbound direction. The low number of transit trips is primarily due to residential students using AAU shuttles rather than public transit, including on weekends. Similar to 1069 Pine Street (ES-16), ES-17 is generally served by Muni bus lines 2-Clement and 3-Jackson on Sutter Street and 27-Bryant on Bush Street. These routes provide further connections to Muni rail service on Market Street. The nearest bus stop to this site, for the 27-Bryant route, is located at the Jones Street/Bush Street intersection, approximately 750 feet to the south. It has a shelter and signage with transit information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 72. The San Francisco Municipal Transportation Agency (SFMTA) operates six additional Muni bus routes (1AX-California "A" Express, 1BX-California "B" Express, 31AX-Balboa "A" Express, 1BX-Balboa "B" Express, 38AX-Geary "A" Express and 38BX-Geary "B" Express) along Pine Street, but they do not stop in the vicinity of this AAU site (these bus lines on Pine Street provide express service between downtown and the Richmond District during the PM peak hours).).

Table 72. 1055 Pine Street (ES-17) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/8th	46%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The AAU student housing use at ES-17 generates five PM peak hour transit trips. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased demand, even in combination with the 94 transit trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit service in the area. Based on the location of the shuttle zone in front of the building, AAU shuttle service has not substantially conflicted with the operation of transit vehicles on nearby streets.

Shuttle

The AAU student housing use at ES-17 generates approximately 54 shuttle riders during the PM peak hour: 25 riders in the inbound direction and 29 riders in the outbound direction. This site was not served by AAU fixed-route shuttle service in 2010, but one shuttle bus route (Sutter Express) started serving this site as of the spring semester in 2015. The Sutter Express route travels north on Taylor Street, turns left on Pine Street, and then turns left on Jones Street, travelling one block on

Pine Street. The Sutter Express route operates with 25-minute headways and a total seating capacity of 19 in the PM peak hour.

Based on the current shuttle capacity, only a portion of the 55 shuttle riders generated by ES-17 (54 riders) and one rider generated by 1069 Pine Street (ES-16) are expected to use the Sutter Express route. Instead, a majority of these students likely walk approximately 1,100 feet to the 860 Sutter Street (ES-13) stop to access other shuttle routes (D, E, G, H, I, and M). If, as suggested in the recommended Condition of Approval for 860 Sutter Street (ES-13), this stop were relocated during the PM peak period to 817-831 Sutter Street (ES-14), this would represent an additional walking distance of 100 feet. If the stop were completely relocated to 491 Post Street (ES-23), this would represent an additional walking distance of 1,600 feet (for a total of 2,700 feet of walking distance) from ES-17.

As of spring 2015, the Sutter Express shuttle bus (8-passenger van) uses the existing 40-foot-long white passenger loading zone in front of the site on Pine Street. Pine Street is not a designated bicycle route; thus the AAU shuttle stop and service on Pine Street does not directly conflict with bicycle traffic. Six Muni bus routes (1AX-California “A” Express, 1BX-California “B” Express, 31AX-Balboa “A” Express, 31BX-Balboa “B” Express, 38AX-Geary “A” Express and 38BX-Geary “B” Express) travel along Pine Street, but they do not stop in the vicinity of ES-17 (these bus lines on Pine Street provide express service between downtown and the Richmond District during the PM peak hours). Based on the location of the shuttle stop, AAU shuttle buses along Pine Street do not conflict with Muni buses.

Pedestrian

The AAU student housing use at ES-17 generates approximately 91 pedestrian trips during the PM peak hour: 32 walking, 5 transit, and 54 shuttle trips. Some of the 54 shuttle walking trips are short, from the building entrance to the passenger loading zone on Pine Street in front of the building; the majority of the shuttle walk trips are about 1,100 feet, to the shuttle stop at 860 Sutter Street about two blocks southwest of ES-17. Bush and Pine streets are both designated as High Injury Corridors under the City’s Vision Zero Improvement Plan.[639] Intersections near this site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Pine Street/Jones Street and Pine Street/Taylor Street intersections have pedestrian crossing signal heads. Sidewalks along Jones Street, Pine Street, and Taylor streets are approximately 12, 12, and 16 feet wide, respectively. The ES-17 property includes a 15-foot-wide driveway with access to parking at the rear of both the 1055 and 1069 Pine Street buildings. Since this parking lot is primarily used for food catering services, maintenance personnel, and athletics staff throughout the day, occasional conflicts with pedestrians may occur. The primary pedestrian access to the site is from Pine Street through the main doorway. The secondary doorway on Pine Street provides direct access to the mezzanine rooms and lounge. There are two additional secondary entries at the back of the building including a side door located near the back of the site for direct access to the café and a back door which is used for kitchen staff to access the kitchen and for food deliveries.

[639] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

The 91 pedestrian trips at ES-17 and seven pedestrian trips for the adjacent 1069 Pine Street site (ES-16) add pedestrian volumes in the area, but even in combination with the 620 PM peak hour pedestrian trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], and 491 Post Street [ES-23]) they are accommodated on the adjacent pedestrian facilities (12-foot-wide sidewalks along Pine Street).

Bicycle

The AAU student housing use at ES-17 generates four PM peak hour bicycle trips, two trips in each inbound and outbound direction. Pine Street is not a bicycle route. However, Route 310 on California Street is within one block of the 1055 and 1069 Pine Street buildings, and Route 16 on Sutter Street is within two blocks of the 1055 Pine Street. AAU reports the eight-space bike rack (Class II) in the rear of 1069 Pine Street (ES-16) is used by the students residing in ES-17. The site's four PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand of approximately 12 spaces, which is not met with existing eight-space bicycle parking supply provided in the adjacent 1069 Pine Street site.[640] Therefore, a Condition of Approval related to additional bicycle parking is recommended below.

Loading

The AAU student housing use at ES-17 is estimated to generate approximately one daily truck trip, which equates to less than one (0.1) trip in an average or the peak hour. In addition, AAU reports that one small Sysco truck makes food deliveries to this site twice a week on Mondays and Thursdays, typically between 11:00 a.m. and 2:00 p.m., and three Sodexo trucks make daily food deliveries to other AAU buildings (i.e., 1849 Washington Street [ES-8] and 180 New Montgomery Street [ES-28]), out of 1055 Pine Street site on a regular basis. Therefore, three of the eight parking spaces are reserved for the use by these Sodexo trucks. Due to the residential nature of Pine Street, no on-street freight loading (yellow) zones are adjacent to or near the site. It is likely that the infrequent commercial deliveries to the site use either on-street parking spaces, when available, or the shared off-street parking spaces provided between the site and the adjacent 1055 Pine Street site (ES-17).

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU-related freight/delivery vehicles or related activities occurred on Pine Street during the observation period. General commercial activity in the area is related to residential deliveries. Commercial deliveries to this site have access to the rear parking area; however, instead of driving down the driveway, commercial deliveries trucks typically park on the street and then carry deliveries down the driveway on dollies due to previous noise complaints from neighbors. Parking occupancy, as further discussed below, near ES-17 is high, the low daily delivery activity related to the student housing use as noted during site visit has not substantially altered on-street loading or parking conditions in the area. As discussed

[640] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

under the 1069 Pine Street (ES-16), a recommended Condition of Approval to allow access for all commercial deliveries to the 1055 and 1069 Pine Street sites is suggested.

Garbage collection at this site occurs on the south side of Pine Street, next to the driveway for the site. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection along Pine Street occurs twice a week in the late night hours.

Parking

The AAU student housing use at ES-17 is not expected to generate a substantial amount of parking demand throughout the day because students are not permitted to park private vehicles at residential sites and AAU discourages students from brining private vehicles into San Francisco.[641] There are five parking spaces along the driveway west of the building and an additional eight spaces in the rear of the adjacent 1069 Pine Street site (ES-16). During the site visit, the parking lot was observed to be full. AAU reports that these spaces are frequently used by Sysco food service staff, maintenance vehicles, and athletics staff throughout the day. As presented in Table 60 above under 1153 Bush Street (ES-11), on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east, and Post Street to the south was observed to be moderate to high, averaging about 86 percent during the midday period. Parking occupancy in the immediate vicinity of this AAU site (and the adjacent 1069 Pine Street site [ES-16]) was 63 to 80 percent along Pine Street between Jones and Taylor streets. However, the student housing and café use at ES-17 is not expected to have substantially altered parking conditions in the area. It is noted that the café is open to all AAU students.

Emergency Vehicle Access

San Francisco Fire Department Station #41 (1325 Leavenworth Street) is the closest station to the AAU site, approximately 0.3 mile north of the site. From the station, vehicles are able to access the AAU site via Jones and Pine streets and would be able to park along Pine Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of the 1055 Pine Street site include a limited amount of Class I (and no Class II) bicycle parking available near the site and no bicycle parking at the site, and limited vehicle access on-site. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-17: TR-1, Class I Bicycle Parking. No bicycle parking is provided at 1055 Pine Street. However, the adjacent 1069 Pine Street building provides an estimated eight (poorly located) spaces. To address the bicycle demand of the adjacent residential amenities and student housing use at 1055 Pine Street, AAU shall add 4 Class I bicycle parking spaces, or, in consultation with SFMTA, shall add4 Class II bicycle parking spaces on Pine Street. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

[641] Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed on April 20, 2016.

Recommended Condition of Approval, ES-17: TR-2, Commercial Vehicle Access. All commercial vehicle deliveries to the 1055/1069 Pine Street buildings should be allowed to utilize the driveway and rear parking area, taking into account possible operational and safety considerations. The driveway is currently gated, so modifications to the gate system may be required to accommodate this traffic.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 1055 Pine Street (ES-17) is located on the south side of Pine Street between Taylor and Jones streets in the Nob Hill area. The building was previously used by the Saint Anthony Foundation for senior housing and was occupied by AAU in 2000. ES-17 currently has 81 rooms and 155 beds and a cafeteria. There is a shuttle stop directly in front of ES-17. No vehicle trips are generated by the uses in ES-17;[642] students use the AAU shuttle system, bicycles, and public transit. According to the San Francisco Transportation Noise Map,[643] the existing traffic noise level near ES-17 from vehicular traffic along Pine Street was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Pine Street currently exceed the "satisfactory" level for a residential land use, according to the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-17. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-17 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-17 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-17.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at the ES-17 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels up to 70 dBA L_{dn}, more insulation may be needed than provided with conventional construction to maintain acceptable interior noise levels 45 dBA L_{dn}. However, the proposed change in use from a residential hotel (group-housing) to group-housing for a post-secondary educational institution would not be

[642] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
[643] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

considered a change from a non-noise-sensitive use to a noise-sensitive use; therefore, the provisions of Title 24 would not apply.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (rooms, cafeteria) at ES-17, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2000, when AAU occupied the building. Area sources were estimated based on an 81 “dwelling unit,” “Mid-Rise Apartments” land use designation in CalEEMod, to be conservative, and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is a heater boiler and generator at ES-17. However, this boiler and generator was installed prior to AAU occupation of ES-17 and was not included in the air quality analysis. Table 73 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-17, which are all shown to be below the Bay Area Air Quality Management District’s (BAAQMD’s) daily and annual significance thresholds.

Table 73. 1055 Pine Street (ES-17) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	2.42	0.09	0.03	0.03	0.39	<0.01	<0.01	<0.01
Energy	0.02	0.14	0.01	0.01	<0.01	0.03	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	2.44	0.23	0.04	0.04	0.40	0.03	<0.01	<0.01
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
1. Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.
ROG = reactive organic gases; NOx = nitrogen oxides; PM10 and PM2.5 = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-17 is not one of those sites; therefore, AAU occupation of ES-17 has not resulted in increased health risks for nearby sensitive receptors, and has not exposed new sensitive receptors to increased health risks.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. The City's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-17 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-17 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-17: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in accordance with Planning Code Section 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-17 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational

facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-17.

Recreation

As shown on Figure 4, p. 3-63, 1055 Pine Street (ES-17) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) facilities: Collis P. Huntington Park, Hooker Alley Community Garden, and the Chinese Recreation Center. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[644] Hooker Alley Community Garden (also known as Nob Hill Community Garden), is operated by volunteers and allows its members to grow produce and ornamental plants.[645] The Chinese Recreation Center, also known as Betty Ong Recreation Center, at 1199 Mason Street features indoor sports courts, play areas, multi-purpose rooms, and a gymnasium.[646] Other publicly owned parks are within a 0.5-mile distance of ES-17, including Union Square, Tenderloin Recreation Center, and Father Alfred E. Boeddeker Park.

As described in Population and Housing on p. 4-416, the capacity of ES-17 is 155 beds. The change in use from group housing to student housing (group housing for a postsecondary educational institution) at ES-17 does not represent a substantial change in the daytime population of the area. The change in population, if any, is considered a minimal increase compared to the service population for the Huntington Park, Hooker Alley Community Garden, and Chinese Recreation Center facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-17 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous residential land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[647] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-17. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

---

[644] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.

[645] San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.

[646] San Francisco Recreation and Parks, Betty Ong Rec Center. Available online at: http://sfrecpark.org/destination/betty-ong-rec-center/. Accessed on January 15, 2016.

[647] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[648] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-17 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[649] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[650] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

<u>Public Services</u>

Police

ES-17 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property

---

[648] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[649] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[650] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[651] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

1055 Pine Street has a capacity of 155 residents (81 group-housing rooms). The change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) within a RM-4 Zoning District would not represent a substantial change in the population of the area. The population of the previous use as a residential hotel would essentially be the same as AAU's student housing (group housing for a postsecondary educational institution) use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change of use at ES-17.

Fire and Emergency Services

ES-17 is located within 2,500 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[652] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[653]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-17 meet the Citywide emergency transport goals.

As described above on p. 4-416, the change in use from a residential hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the

[651] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[652] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[653] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire alarm system and modified an existing partial sprinkler system to full operation, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change of use at ES-17.

Libraries

The nearest public library to ES-17 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-416, the change in use from residential hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. Therefore, no substantial effect on library services has occurred as a result of the change of use at ES-17.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

Given the small size of the rooms, the previous use as a residential hotel likely had minimal, if any, school-aged children. The change in use to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand to SFUSD, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[654] No change in the school-aged population would occur. For the reasons stated above, no effect on schools occurred from the change in use at ES-17.

Biological Resources

ES-17 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-17. ES-17 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-17.

Geology and Soils

ES-17 is underlain by a variable thickness of artificial fill that overlays well-sorted, fine to medium grained dune sands. The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable and

[654] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

overlays bedrock. At the property and immediate vicinity, atop the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is approximately 16 to 36 feet below ground surface and flows south and southeast, corresponding to surface topography.[655] Because building alterations undertaken by AAU were all interior or limited to minor exterior non-structural modifications, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-17 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake originating from the Hayward Fault.[656,657] ES-17 is not located within a liquefaction zone.[658] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-17 is composed of concrete construction and does not have a soft story.[659] ES-17 is not made of unreinforced masonry.[660] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the building alterations carried out after the change in use from residential hotel to student housing (group housing for a postsecondary educational institution) would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-17 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, fencing, and painting). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

---

[655] Geologica, Inc., Phase I Environmental Site Assessment for 1055 Pine Street, March 2003.

[656] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[657] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[658] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[659] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[660] City and County of San Francisco, UMB – All Report, December 1, 2014.

ES-17 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[661] ES-17 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-17.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-17 identified a closed-in-place underground storage tank that was in accordance with local regulations and had no associated soil or groundwater contamination. The historic occurrence of hazardous materials including cleaning solvents and medical wastes associated with the hospital use is likely.[662] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1910, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the basement and on the ground floor, although there is no evidence of damage or leaks. No peeling paint was detected.[663] Prior to building alterations, materials were tested for ACMs and none were detected.[664] Building alterations at the existing site may have disturbed or exposed LBP and PCBs, or other hazardous building materials. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-17 is a student housing building that features a café. Hazardous materials that are used, stored, and disposed of at ES-17 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-17.

---

[661] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[662] Geologica, Inc., Phase I Environmental Site Assessment for 1055 Pine Street, March 2003.
[663] Geologica, Inc., Phase I Environmental Site Assessment for 1055 Pine Street, March 2003.
[664] Environova, Limited Asbestos Survey, Academy of Art University, 1055 Pine Street – Common Restrooms, June 17, 2013.

Tenant improvements at ES-17 associated with the conversion of residential hotel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-432. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[665] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-17, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-17. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-17 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-17 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-17 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[666] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-17 has had no substantial effects on agriculture or forest resources.

[665] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 1055 Pine Street, March 4, 2016.

[666] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.16. 620 Sutter Street (ES-20)

Property Information

The 620 Sutter Street existing site (ES-20), the "Clara Gil Stephens Building," is a seven-story, 67,775-square-foot building constructed in 1918 (Photographs 97–100). The building is located on Sutter Street between Taylor and Mason streets, in the Downtown/Civic Center neighborhood. Figure 13, ES-20: 620 Sutter St – Existing Condition, in Appendix TDM, shows the site near the corner of Sutter and Mason streets. The site is Lot 004A in Assessor's Block 0283. Academy of Art University (AAU) uses the building as both student housing and institutional uses for theater and studio purposes. As student housing, it contains 65 group-housing rooms with a capacity for 129 beds.

Prior to AAU occupation in 2005, the building was originally occupied by the San Francisco YWCA and later served as a tourist hotel containing 65 rooms. Designed by Lewis Parsons Hobart, it ranks as a Category I building within the Kearny-Market-Mason-Sutter Conservation District.[667,668] The student housing building includes an indoor pool, theater, and fitness gymnasium. AAU shuttle buses use the 66-foot-long shuttle-only passenger loading zone in front of the site on Sutter Street. The shuttle zone has a "No Parking Shuttle Bus Zone" sign posted on a pole. The stop serves Routes D, E, G, H, I, and the Sutter Express.

The site is in the C-3-G (Downtown General Commercial) Zoning District, a district having a variety of uses with Citywide functions. Single room occupancy housing and student housing are principally permitted uses in this district, as are institutional and retail sales uses. Hotel and motel uses require conditional use (CU) authorization. ES-20 is located in an 80-130-F height and bulk district.

Tenant Improvements and Renovations

AAU replaced a domed canvas canopy over the main entrance without a building permit. AAU obtained a permit for inspection of the fire alarm system and patched holes in a telephone closet.[669] AAU added security cameras and lighting to the first floor of the primary elevation without permits. AAU installed three rooftop condenser units without building permits.

Required Project Approvals

A building permit is required under San Francisco Planning Code (Planning Code) Section 171 to legalize the conversion of ES-20 from a tourist hotel to student housing (group housing for a postsecondary educational institution) within the C-3-G Zoning District. A Major Permit to Alter is required under Planning Code Article 11 to legalize or modify past building alterations performed without benefit of permit.

---

[667] *2011 IMP*, p. 98.

[668] Category I buildings are building in the C-3 Zoning Districts that are at least 40 years old, are judged to be buildings of individual importance, and are rated excellent in architectural design or are rated very good in both architectural design and relationship.

[669] Building Permits obtained for the improvements and renovations at ES-20 are: BPA #9418743 (canopy removal, permit never issued), #201002247104 (fire alarm), and #201104063562 (patching).

Photograph 97. 620 Sutter Street (ES-20).

Photograph 98. Mid-block Sutter Street, facing south, toward 625–629 Sutter Street (ES-22).

Photograph 99. Mid-block Sutter Street, facing southwest.

Photograph 100. Mid-block Sutter Street, facing northwest.

Plans and Policies and Land Use

ES-20 is located in the Downtown/Civic Center neighborhood. In the immediate vicinity of ES-20 there exists a mix of uses including residential, hotel, commercial, and parking. AAU occupies four buildings on the same block of Sutter Street between Taylor and Mason streets (620, 625, 655, and 680 Sutter Street). The surrounding buildings on the subject block range from three to 11 stories. The ES-20 building was built in 1918, is seven stories, and is known as the Y.W.C.A. Building.

Sutter Street is a three-lane, one-way westbound street with one bus-only lane. Metered parking is permitted on both sides of Sutter Street with interspersed freight and passenger loading zones and a bus stop at the northwest corner of Sutter and Mason streets. Parking is also located at two separate parking lots located on both sides of Sutter Street between Taylor and Mason streets.

Similar to the ES-20's previous use as a tourist hotel, many of the buildings on the block have a hotel use, including the Marine Memorial Club and Hotel, Metropolitan Club, and Hotel Beresford. ES-20 is located on the northern boundary of the Kearny-Market-Mason-Sutter Conservation District, which is the center of San Francisco's retail and tourist sectors, containing a concentration of fine shops, department stores, theaters, hotels, and restaurants. Adjacent and to the north of ES-20 is the Lower Nob Hill Apartment Hotel National Register Historic District, which has a higher concentration of residential and ground-floor retail/commercial uses.

The zoning near ES-20 is C-3-G (Downtown General Commercial). The C-3-G Zoning District covers the western portions of downtown and is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a Citywide or regional function, although the intensity of development is lower here than in the downtown core area. The C-3-R (Downtown Retail) District is located east of Mason Street and the RC-4 (Residential-Commercial-Combined, High-Density) is located adjacent to and north of ES-20. ES-20 is located in an 80-130-F height and bulk district.

ES-20 is located within the Downtown Planning Area. The Downtown Plan calls for the protection and enhancement of high quality retail uses around Union Square, west of the Financial District, and maintenance of general commercial and service uses. The Downtown Plan policies call for the protection of existing residential uses, including residential hotels, and other affordable housing.

As noted above, the use of ES-20 has been changed by AAU from a tourist hotel to student housing (group housing for a postsecondary educational institution) use with a gymnasium, student housing, offices, and an indoor pool. The change in use of the existing structure involved limited exterior alterations, with exception to replacing the canopy over the main entrance, described above under Tenant Improvements and Renovations. The change in use of the site from a tourist hotel to student housing (group housing for a postsecondary educational institution) would not conflict with the mix of uses that are prevalent in the C-3-G Zoning District. However, the change in use would change the pattern of use and intensify AAU's presence in the vicinity, as three other AAU buildings are located on the same block (625, 655, and 680 Sutter Street). Two other AAU buildings are located two blocks to the east at 817–831 and 860 Sutter Street. One building is located at 740 Taylor Street. The intensification could cause localized changes to the character of the neighborhood and patterns of use at the site (i.e., student populations would replace hotel guests). The change in use would not be incompatible with existing uses in the vicinity, as student housing is typical of the urban area in which ES-20 is located.

Student housing (group housing for a postsecondary educational institution) is allowed within C-3-G Zoning Districts. ES-20 would require a building permit pursuant to Planning Code Section 171. ES-20 would require a building permit under Planning Code Section 171. Therefore the ES-20 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-20 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-20 is 129 beds (65 group-housing rooms). The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) did not alter the daytime population of the building because the previous use as a hotel would have had a comparable capacity. However, student residents cause a more permanent change to population compared to tourists who would vacate the rooms after a short period of time. It is expected that some students would become permanent residents of the City. Conservatively presuming that ES-20 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, because it would represent less than 1 percent of the overall population of San Francisco (829,072).[670]

Given the close proximity of other AAU student housing locations at 655, 680, and 817–831 Sutter Street, the neighborhood population of AAU students is relatively high (approximately 768 student residents) on Sutter Street, between Leavenworth and Mason streets. The student population would be typical of an urban neighborhood with a mix of populations and uses.

The site is located within a Priority Development Area (PDA) identified in *Plan Bay Area*.[671] PDAs are areas identified for housing and population growth because of their amenities, services, pedestrian-friendly environment, and transit.[672] Although AAU's change in use would not support new development, its induced population growth, although minimal, would be supported by sustainable city center characteristics (e.g., public transportation and walkability). No substantial effect on population has occurred from the change in use at ES-20.

---

[670] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.
[671] ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at http://gis.abag.ca.gov/website/PDAShowcase/. Accessed on November 10, 2015.
[672] ABAG, *Plan Bay Area*, p. 2, July 18, 2013. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed on November 10, 2015.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The change in use at ES-20 from a tourist hotel to student housing (group housing for a postsecondary educational institution) provides a dense housing option for students that could alleviate some pressure on Citywide housing demand, as the previous hotel use did not provide any housing opportunities. If AAU housing was not offered, students would seek private housing within various areas of the City or around the Bay Area. Private housing would likely not have the density that student housing provides (average of 280 square feet per resident). The effects on housing demand would be minimal, as the capacity is limited to 129 beds. No substantial effect on housing demand has occurred from the change in use of ES-20.

Aesthetics

ES-20 is located in Downtown/Civic Center neighborhood and within the Kearny-Market-Mason-Sutter Conservation District. ES-20, which was built in 1918, is seven stories tall and is an example of Georgian Revival architecture. The building is nine bays wide with a flat roof and brick, terra cotta, and stonework façade. “Young Women’s Christian Association,” a relic of the historic YWCA use, is etched into the stonework above the main entry. A black awning with an AAU logo is located above the main entry. No street trees are located along Sutter Street near ES-20.

The pattern and development of the Kearny-Market-Mason-Sutter Conservation District is one of small-scale, light-colored buildings predominantly four to eight stories in height. The height and scale provide for a streetscape which is attractive to the pedestrian because of the comfortable scale and sunlit sidewalks. The character of the area is determined by the many fine quality structures, among the best in the city, and supported by a number of contributory buildings. Since almost the entire area was built in less than 20 years, and the major portion in less than 10 years, buildings were constructed with similar styles and structural technology.[673] The area is a major commercial and retail center intermixed with high volume hotels and retail buildings. In general, density increases toward the Financial District in the east; moving west, buildings are characterized by lower heights and massing.

The topography is steep in the north-south direction (toward the top of Nob Hill) and slopes more gently toward the east (in the direction of San Francisco Bay). View corridors are limited to streets and intersections due to the density of development. ES-20 is bordered by buildings to the north, east, and west, and Sutter Street to the south. Due to the urban character of the neighborhood, bordering roadways carry a high volume of traffic at almost all times of the day and week. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The surrounding area contains mainly mid-rise buildings containing office, residential, and hotel functions. There is an architectural mix of older structures side-by-side with modern buildings. In general, buildings adjoin one another, extend to the sidewalk, and form a continuous façade. The buildings are fairly uniform in size on the subject block from three to seven stories, with a majority

[673] Planning Code Appendix E to Article 11.

of the buildings having more than five stories. Many of the buildings include ground-floor retail spaces and residential, office, or hotel uses on the upper floors. A surface parking lot and parking structure are located to the west of ES-20 on either side of Sutter Street

The change in use at ES-20 has caused some changes to the building and neighborhood visual character. The only exterior alteration on ES-20 that visibly displays AAU's use is a black awning with the AAU logo. However, because there are three other buildings with AAU-related signage on the subject block, along with AAU pole banners that were apparent at the time of the site visit, the visual presence of AAU is evident. However, AAU signage on ES-20 is comparable to the visual character of the area. Advertising located on signs, awnings, bus stops, and pole banners is prevalent within the neighborhood. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-20.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The former YWCA at 620 Sutter Street (ES-20) is a mid-rise, Georgian Revival–style building constructed in 1918. It features rectilinear massing and is set flush to the sidewalk on a rectangular, sloped lot. Constructed of stone and brick, it is nine bays wide and has a tripartite design composition that is articulated by bolder ornamentation and forms on the lower and upper stories. The building has a flat roof and a parapet, which terminates in a shallow copping.

The primary elevation's tall first story is covered in stone and has a centered, recessed main entry. Rectangular multi-light casements and double-hung windows are arranged symmetrically on the elevation. The windows on the first, second, and seventh stories are bordered by detailed arched and rectangular stone surrounds. Although there are window openings on the second through seventh stories of the eastern bay of the elevation, there are no window frames installed in the openings, which appears to be original to the building's construction. Stone medallions are located above windows on the second and seventh story. Decorative metal railings are located in front of the seventh story windows. Awnings have been added over the main entry and the eastern personnel door on the first story. A portion of the eastern elevation is visible from the second story to the seventh story. The patterns in fenestration and materials usage established on the primary elevation have been retained on all visible portions of the secondary elevation.

Through the main entry is a large rectangular lobby that has been largely altered with modern materials. It is bordered by open rooms, which previously housed a non-original bar and hair salon. Other communal spaces that are located off the lobby include an indoor pool and a performance theater. Although the theater has been altered, the pool appears largely intact both in materials and design. With the exception of the second and seventh floors, which feature dining accommodations and a dance studio respectively, the upper floors are residential and have identical floor plans. Character-defining features found throughout the interior include decorative molding, and original doors, transoms, frames, and wainscot (for representative photographs refer to Photographs 101–103).

Photograph 101. 620 Sutter Street.

Photograph 102. 620 Sutter Street, detail of main entry.

Photograph 103. Interior pool of subject property.

Site History

The 620 Sutter Street building was constructed in 1918 for an estimated cost of $230,000. The seven-story building, with basement, was designed by architect Lewis P. Hobart (1873–1954). A native of St. Louis, Missouri, Hobart received his degree in architecture from the University of California and after practicing in New York for 2 years, returned to California in 1906. He remained in San Francisco until his death, designing a number of notable buildings in the city including Jeweler's Building (1908), Grace Cathedral (designed in 1910), the Academy of Sciences (1915–1931), and the Union Square Macy's Department Store (1928).[674]

In his design for the new YWCA building at 620 Sutter Street, the *San Francisco Chronicle* detailed Hobart's approach:

> Everything possible has been done by the architect, Lewis P. Hobart to make this building homelike in every respect on the theory that a structure of its kind should be in character of a large complex home rather than as a type of hotel. This though is worked out in the general interior arrangement, which separates the living-rooms from the public part of the building. The main entrance vestibule will open into a large living-room, which will among other interesting features will have a great open fireplace carved into Bedford stone… In the rear will be an auditorium with a seating capacity of 500 persons: also a gymnasium and swimming pool, the latter decorated in warm Pompeian wall colors. Across the entire front of the second story will be a cafeteria to be open to the public at all times… Executive offices, classes and club and rest rooms will be arranged on the third floor. The next three floors will be devoted exclusively to hotel rooms for members having permanent residence in the building and for visiting members. Separate living-rooms, serving and tea rooms will be in this section. On the seventh floor will be the library, supper and board rooms, all convertible into a large room for parties or theatrical parties.[675]

[674] Carey & Co., Inc., California Department of Parks and Recreation (DPR) 523 Series Form for Glen Park Elementary School, 3 June 2009. On file with the San Francisco Planning Department.
[675] San Francisco Chronicle, Y.W.C.A. Home Will be Open Early in Fall, March 16, 1918.

The YWCA would occupy the building for the following 70 years, during which time they would complete a number of alterations to the building consistent with its ongoing use. In 1988, the building was sold to William Ferndon who converted the building for use as a hotel. Ownership subsequently transferred to Union Square Hotels in 2000 before the property was eventually occupied by AAU in 2005 (building permits).

California Register of Historical Resources Evaluation

The 620 Sutter Street building was evaluated for eligibility for the California Register of Historical Resources (CRHR) as part of the current study. In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 620 Sutter Street appears CRHR-eligible individually under Criterion 1, as an exemplification of institutional development in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period (period of significance is 1918). The property is also eligible under Criterion 1 for its approximately 70-year history as a YWCA (the period of significance is 1918 to 1988). The property qualifies individually under CRHR Criterion 3, as an excellent example of Georgian Revival–style institutional architecture in downtown San Francisco (period of significance is 1918).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[676] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). The 620 Sutter Street building retains integrity and remains CRHR-eligible.

Character-Defining Features Summary

Exterior

- Mid-rise height and rectilinear massing and building plan
- Nine bays wide, with parallel, symmetrical arrangement of recessed windows
- Site: set flush to sidewalk
- Tripartite vertical design composition, with bolder ornamentation/forms on ground story, finer detailing through middle floors, and elaborated ornamentation on top floor
- Brick/terra cotta sheathing and ornament
- Flat roof with no overhanging eaves
- Parapets, with centered medallion ornament
- Decorative quoining spanning ground floor
- Ornamental effect achieved through patterned, polychromatic brickwork and terra cotta
- Articulated fenestration treatment, with large window openings on first floor

---

[676] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

- Centered, recessed primary entrance
- Second story windows with stone surrounds, decorative brackets, and lintels
- Top story windows have arched stone surrounds with keystones and decorative panel in arch
- Ornamental balcony railings frame top floor windows

Interior

- Spatial configuration and circulation of entrance lobby and offices
- Decorative molding and dentil course in lobby
- Curved vaulted ceiling
- Original doors, transoms, frames, wainscot
- Original (early update) elevator
- Original light fixtures (upper floors)
- Original pool with tile on walls, columns, and pilasters
- Spatial configuration of theater area, with stage and auditorium space

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awning and Canopy Covers: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 2. The central entryway features detailed, ornamental terra cotta surround, which is currently obscured by the opaque awning material. In addition, the building features a symmetrical design, articulated by the recessed central entryway and service entries on the ground level. The awning and extending canopy currently obscure and negatively affect the recessed voids, which contribute to the visual character of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The installation of the security cameras resulted in minimal damage/obstruction to distinctive features and finishes.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 3. Installed at the central entryway as of 1975 (Permit 444568), the awning and canopy covers introduce an element inconsistent with the original design and character of the building, in a highly visible location.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awning and Canopy Covers: The project complies with Rehabilitation Standard No. 5. The re-sheathing of the existing awning and canopy frames did not result in the loss of distinctive materials, features, or finishes.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in nominal damage/obstruction to distinctive features and finishes.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 9. The awning and canopy materials obscure the ornamental door surrounds, which are historic features that were designed to be seen, and the overall rhythm and design of the façade.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awning and Canopy Covers: The project complies with Rehabilitation Standard No. 10. The awning covers and framing they sheath could be removed at a future date with no impairment to the building.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Article 11 Analysis

Although the Kearny-Mason-Market-Sutter (KMMS) Conservation District Design Standards discuss awnings, the focus is primarily on storefronts and commercial properties rather than institutional properties such as the subject property. Some of the Design Standards presented apply nonetheless. Specifically, the Design Standards specify that awnings should not obscure character-defining features.[677] In the case of the subject property, the central entryway features a detailed, ornamental terra cotta surround, which is currently obscured by the opaque awning material. In addition, the building features a symmetrical design, articulated by the recessed central entryway and service entries on the ground level. The awning and extending canopy currently obscure and negatively affect the recessed voids, which contribute to the visual character of the property.

Conclusion

The following Condition of Approval is recommended to facilitate bringing the building at 620 Sutter Street (ES-20) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-20: HR-1, Awning. Awning covers and frames shall be removed and the original entrance appearance restored. Following removal of the awning mounting hardware, perforations to and damaged areas in the masonry of the ornamental door surrounds shall be patched, repaired, and restored to match existing in appearance (color, texture, detailing).

Archaeology and Paleontology

Building alterations at ES-20 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-20 is located on the north side of Sutter Street near the northwest corner of Sutter Street and Mason Street in the Downtown/Civic Center neighborhood. The building was built in 1918 and originally housed the San Francisco YWCA. AAU occupied the building in 2005 and currently has approximately 67,775 gross square feet of residential student housing, with 65 group-housing units and a total of 129 beds. The building also has a gym and pool.

No vehicle or bicycle parking is provided on site. There are three entries to the building along Sutter Street: one main entry and two secondary entries for access to the interior sidewalk and handicap

[677] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 7.

access. AAU shuttle Routes D, E, G, H, I, and Sutter Express use the 66-foot-long white passenger-loading zone along the frontage of the site.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the student housing use at this AAU site generates approximately 76 person trips (35 inbound trips and 41 outbound trips) and no vehicle trips during the weekday PM peak hour.

Traffic

ES-20 is located on or near Sutter Street, Post Street, Bush Street, Mason Street, and Taylor Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (the current site at 1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The surrounding roadways are discussed in detail above under 1153 Bush Street (ES-11), 1080 Bush Street (ES-12), and 1069 Pine Street (ES-16). The characteristics of Sutter Street, Post Street and Bush Street are discussed in detail above under 1153 Bush Street (ES-11). The following includes summaries of these streets near ES-20 and a discussion of Mason Street, which runs east of the site. Transit and shuttle traffic is discussed below.

Bush Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Market Street. In the vicinity of ES-20, Bush Street has three eastbound lanes (four in the morning peak period) and metered parking on both sides of the street. The parking lane along the north curb turns into a vehicle travel lane during the AM peak period between 7:00 a.m. and 9:00 a.m., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Bush Street as a Major Arterial in the CMP Network. Bush Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Sutter Street is an east-west downtown residential/commercial throughway street that runs between Presidio Avenue and Battery Street. In the vicinity of the AAU sites, Sutter Street has two westbound vehicle lanes, a westbound transit-only lane and metered parking on both sides of the street. The parking lane along the north side of the street converts into a travel lane during the PM peak period between 4:00 p.m. and 6:00 pm., increasing the total number of travel lanes to three during this period. The *San Francisco General Plan* classifies Sutter Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Sutter Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Post Street is an east-west downtown residential street that runs between Presidio Avenue and Market Street. In the vicinity of this AAU site, Post Street has two eastbound vehicle lanes, one transit-only lane, and metered parking on both sides of the street. The *San Francisco General Plan* classifies Post Street as a Transit Preferential Street (Secondary Transit Street), and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Post Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Taylor Street is a north-south street that runs between The Embarcadero and Market Street. In the vicinity of the AAU sites, Taylor Street has three northbound lanes and metered parking on both sides of the street.

Mason Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Mason Street has two southbound lanes and metered parking on both sides of the street.

The student housing use at ES-20 is not expected to generate a substantial amount of vehicle trips to adjacent streets because residential students are discouraged from driving private automobiles. Therefore, traffic operating conditions in the vicinity have not been altered by student housing uses at the site as a result of AAU's use of ES-20.

Transit

The AAU student housing use at ES-20 generates approximately four transit trips during the PM peak hour, two trips in each direction. The low number of transit trips is primarily due to residential students using AAU shuttles rather than public transit, including on weekends. Similar to 860 Sutter Street (ES-13), ES-20 is generally served by Muni bus lines 2-Clement and 3-Jackson along Sutter Street and the 27-Bryant line along Jones Street. These routes provide further connections to Muni rail service on Market Street. The nearest bus stop to ES-20 is located in front and adjacent to the site at the Mason Street/Sutter Street intersection for the 2-Clement and 3-Jackson lines. This stop does not have a shelter or service information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). Muni route 76X-Marin Headlands Express runs along Sutter Street on Sundays and holidays only and stops at the Mason Street/Sutter Street intersection. SFMTA also operates bus lines 8-Bayshore, 8AX-Bayshore "A" Express, 8BX-Bayshore "B" Express, 30-Stockton, and 45-Union-Stockton along Sutter Street east of Mason Street. The nearest stop for these routes is at the Sutter Street/Stockton Street intersection, approximately 2.5 blocks (1,300 feet) east of ES-20. The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 74.

As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, the increased demand from four additional PM peak hour transit trips, even in combination with the 129 transit trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), has not made a substantial contribution to the existing transit service in the area. Based on the location of the shuttle zone in a tow-away zone (from 4:00 p.m. and 6:00 p.m.) adjacent to a transit-only lane, AAU shuttle service to the site potentially conflicts with the operation of transit vehicles along Sutter Street. Therefore, a Condition of Approval related to relocation of the shuttle stop to an alternate location is recommended below under Existing Constraints and Proposed Conditions of Approval.

Table 74. 620 Sutter Street (ES-20) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
8 – Bayshore	City College to Kearny and North Point via U.S. 101	7.5	9	7.5	N/A	N/A	N/A
8AX – Bayshore “A” Express	Columbus and Pacific to Geneva and Schwerin via U.S. 101	6	N/A	7	568	Harrison St/ 6th St	75%
8BX – Bayshore “B” Express	City College to Kearny and North Point via U.S. 101	6	N/A	7	480	Geneva Ave/ Paris St	63%
27 – Bryant	Cesar Chavez and Mission to Van Ness via Bryant, 5th, and Leavenworth	15	15	15	116	Harrison St/8th	46%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St, and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
76X – Marin Headlands Express	Market and Sansome to 1st St and Mitchell via Golden Gate Bridge, Lombard, Sutter, and Post	N/A	60 (Sundays and Holidays Only)	60 (Sundays and Holidays Only)	N/A	N/A	N/A

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

Shuttle

The AAU student housing use at ES-20 generates approximately 43 shuttle riders during the PM peak hour, 20 riders in the inbound direction and 23 riders in the outbound direction. The site was served by five shuttle bus routes (D, H, I, Q and R) in 2010. Route D operated every 20 minutes, Routes H and I each operated every 15 minutes, and Routes Q and R each operated every 30 minutes throughout the day. The total seating capacity for these five routes was 728 seats in the PM peak hour. Routes D, H, I, Q, and R operated at 30, 63, 78, 29 and 18 percent capacity, respectively, at the MLP during the PM peak hour in 2010. During the shuttle peak hour, Routes D, H, I, Q, and R operated at 64, 126, 130, 96, and 55 percent capacity, respectively, at the MLP, with two routes (H and I) operating above the total seating capacity. MLPs occur at 860 Sutter Street on Route D, at 466 Townsend Street and on Route H, at 79 New Montgomery on Route I, at 1849 Van Ness Avenue on Route Q, and at 1916 Octavia Street on Route R. In spring 2015, five regular shuttle bus routes (D, E, G, H, and I) and one express shuttle bus route (Sutter Express) serve this site directly. These six routes operate with a total seating capacity of 433 in the PM peak hour, a 40 percent reduction in service. Spring 2015 capacity utilization data is unavailable. The shuttle buses for these routes range in size from 33 passengers for the D and E routes to a 42-passenger bus for the H and I routes.

Based on the current capacity of shuttle service, the 43 PM peak hour shuttle bus riders, in addition to the estimated 293 shuttle bus trips from nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), are likely accommodated on these routes. However, since these routes also serve other residential and institutional locations, two of the routes (H and I) operate above total seating capacity, and this shuttle zone was observed to be very busy during school hours, a Condition of Approval to monitor shuttle demand on these routes (D, E, G, H, I, M, and Sutter Express) is recommended below under Existing Constraints and Proposed Conditions of Approval.

In 2010, AAU shuttle buses used the 66-foot-long shuttle-only passenger loading zone in front of the site on Sutter Street. The shuttle zone has a “No Parking Shuttle Bus Zone” sign posted on a pole. The hours of shuttle operation are between 7:00 a.m. and 4:00 p.m. and from 6:00 p.m. to 12:00 a.m. Monday through Friday and from 7:00 a.m. to 12:00 a.m. on Saturday and Sunday. AAU shuttle buses continue to use this white zone as of spring 2015. It is noted that this shuttle stop has been used as a hub transfer stop between routes since 2010. While the shuttle buses are observed to arrive often bunched together due to traffic conditions along the route, they operate with fixed schedules and do not wait for transfer or lay over at this location. Based on the current shuttle schedule and shuttle bus size serving ES-20, the existing shuttle trips require providing an 80-foot-long shuttle zone (see Appendix TR-H for loading zone analysis). Therefore, the existing 66-foot-long shuttle zone is not sufficient to accommodate the expected demand. A recommended Condition of Approval related to monitoring shuttle on-time performance on an ongoing basis is included to manage the number of shuttle vehicles arriving at the white passenger loading zone at any given time.

Additionally, the existing shuttle-only white zone at ES-20 (similar to 860 Sutter Street [ES-13], discussed above) is subject to No Stopping Tow Away regulations between the hours of 4:00 p.m. and 6:00 p.m. Thus, continued use of white zones during these PM peak period hours at these two locations is in violation of the City’s regulations. Given the location of the shuttle stop at this site, a recommended Condition of Approval about relocating the shuttle stop to an alternate location.

Sutter Street is a designated bicycle route (Route 16). During field observations, no substantial conflicts between AAU shuttle buses and bicycle traffic was observed on Sutter Street due to the relative low volumes of bicycle traffic observed. Two Muni routes (2-Clement and 3-Jackson) operate along the Sutter Street bus-only lane. AAU shuttle buses occasionally arrived bunched together, and several shuttle vehicles were observed to double park in the adjacent bus-only lane. Field observations indicate that the shuttle-only passenger loading zone was also occasionally used by non-shuttle vehicles, which contributed to shuttle buses double parking in the adjacent bus lane. Therefore, a Condition of Approval measure related to enforcement of the shuttle zone violation is recommended below under Existing Constraints and Proposed Conditions of Approval.

Pedestrian

The AAU student housing use at ES-20 generates approximately 73 pedestrian trips, including 26 walking, four transit, and 43 shuttle trips during the PM peak hour. The 43 shuttle walking trips are short in length, from the building entrance to the shuttle zone on Sutter Street in front of the building. Bush, Hyde, and Sutter streets are designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[678] Intersections near the site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Sutter Street/Mason Street intersection has pedestrian crossing signal heads. Sidewalks along Sutter Street and Mason Street are approximately 12 feet and 14 feet wide, respectively. There is no curb cut adjacent to the site. The primary pedestrian access to the site is from Sutter Street through the main entry doorway. Two secondary entries along Sutter Street provide direct access to the interior sidewalk and handicap access.

Pedestrian volumes were observed to be generally moderate in the vicinity of the site and pedestrians were observed to move freely in the sidewalk and crosswalk areas. There was occasional overcrowding within the sidewalk areas outside of the AAU site, likely because of students waiting for shuttles, and Muni patrons waiting for transit at the adjacent bus stop. No instances of pedestrian-vehicle conflicts at crosswalk locations were observed.[679] The 73 pedestrian trips at ES-20 in combination with the 645 pedestrian trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]) have added pedestrian volumes in the area; but given that these trips are spread onto multiple streets, they are accommodated on the adjacent pedestrian facilities (12-foot-wide sidewalks along Sutter Street).

A recommended Condition of Approval to assess/monitor shuttle service is presented below. Improving shuttle service frequency at ES-20 could better meet the demand at the site, and students would be less likely to gather or wait for shuttles on sidewalks. An additional recommended Condition of Approval, presented below, suggests that AAU continue to improve shuttle waiting areas so that waiting shuttle passengers would not block sidewalks. Improvements could include adding benches/waiting areas adjacent to the ES-20 building and creating a waiting area inside the building for shuttle bus passengers that would feature information on arriving shuttle buses (similar to Nextbus).

[678] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.
[679] Field observation was made by CHS on Wednesday July 15, 2016 between 1:00 p.m. and 3:00 p.m.

Bicycle

The AAU student housing use at ES-20 generates three bicycle trips during the PM peak hour, one trip in the inbound direction and two trips in the outbound direction. Bicycle Route 16 is a Class III bike route that runs along Sutter Street and provides direct access to this site. This route connects to Route 45 on Steiner Street to the west and to Route 50 on Market Street to the east. AAU reports there are no bicycle parking facilities on site. The nearest Class II bicycle parking racks are located across the street in front of 625 Sutter Street (an AAU institutional building). The site's three PM peak hour bicycle trips, even in combination with 23 bicycle trips generated by other AAU facilities in the vicinity (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 1069 Pine Street [ES-16], 1055 Pine Street [ES-17], and 491 Post Street [ES-23]), have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand of approximately nine spaces.[680] Pursuant to Planning Code Section 155.2, the 129-bed student housing use at ES-20 is required to provide 31 Class I bicycle and three Class II spaces.[681]

Given that the site includes 129 beds of residential use, a Condition of Approval measure related to additional Class I and Class II bicycle parking is recommended below.

Loading

The AAU student housing use at ES-20 generates approximately two daily truck trips, which equates to less than one (0.1) trip in an average or peak hour. AAU reports that one large Sysco truck (either a large panel truck or a small semi-trailer combination, depending on the order volume) makes food deliveries to this site twice a week on Mondays and Thursdays, typically between 11:00 a.m. and 2:00 p.m. This site does not have any off-street loading spaces. In the vicinity of ES-20, there are approximately nine freight loading (yellow) spaces along Taylor Street, Sutter Street, and Mason Street (i.e., 60-foot-long yellow zone on the east side of Taylor Street, 100-foot-long yellow zone on the south side of Sutter Street (approximately 40 feet in front of 625 Sutter Street [an AAU institutional building] and 60 feet in front of 644 Sutter Street [an AAU residential building]), and 20-foot-long yellow zone on the west side of Mason Street). In general a 20-foot-long space can accommodate one sedan, van, or pickup-size vehicle.

Field observations of commercial loading activities in the vicinity of ES-20 were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. Of the total nine yellow spaces (three spaces on Taylor Street, five spaces on Sutter Street, and one space on Mason Street, assuming each space is approximately 20 feet long), approximately half of the spaces were occupied with freight/delivery vehicles. Site visits did not indicate regular freight/delivery activities to the site. Due to the low daily delivery activity related to this use as noted during observation, loading demand is accommodated in areas near the site

[680] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

[681] Planning Code Section 155.2 requires that one Class I space is provide for every four beds. For buildings containing over 100 beds, 25 Class I spaces plus one Class I space are provided for every five beds over 100. A minimum of two Class II spaces are provided for every 100 beds. Student housing shall provide 50 percent more spaces than would otherwise be required.

Garbage collection at this site occurs on the north side of Sutter Street, next to the entrance for the site. Trash receptacles are pulled through the secondary entrance on Sutter Street and are placed along the sidewalks at designated areas. Garbage collection along Sutter Street occurs six times a week in the early morning hours.

Parking

The AAU student housing use at ES-20 is not expected to generate a substantial amount of parking demand because students are not permitted to park private vehicles at residential sites and AAU discourages students from brining private vehicles into San Francisco.[682] The site does not provide any off-street parking. Although student housing use at the site has not resulted in an increase in parking demand, an on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J. As presented in Table 60 above under 1153 Bush Street (ES-11), on-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east, and Post Street to the south during the midday was observed to be moderate to high, averaging about 86 percent during the midday period. There is no general parking provided in the immediate vicinity of this AAU site along Sutter Street between Taylor and Mason streets. The student housing use at this AAU residential site is not expected to have substantially altered parking conditions in the area.

Emergency Vehicle Access

San Francisco Fire Department Station #41 (1325 Leavenworth Street) is the closest station to the AAU site, approximately 0.3 mile north of the site. From the station, vehicles are able to access the AAU site via Jones and Sutter streets and would be able to park along Sutter Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-20 include a potential shuttle deficiency, shuttle double-parking, shuttle loading/unloading in a tow-away zone during PM peak period, a potential shuttle/transit conflict, pedestrian/shuttle zone conflicts, and a limited amount of bicycle parking available at the site. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-20: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for the shuttle routes serving the 620 Sutter site (D, E, G, H, I, M and Sutter Express), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Recommended Condition of Approval, ES-20: TR-2, Shuttle Zone Size and Double-Parking. Based on the existing shuttle schedule and the size of the shuttle buses serving this AAU site, the existing 66-foot-long loading zone cannot accommodate the peak loading demand, causing shuttle

682 Student FAQs, http://www.academyart.edu/faqs/faqs-student, accessed on April 20, 2016.

buses to double park along Sutter Street. AAU should monitor on-time performance to ensure the estimated peak shuttle demand is met within the shuttle zone.

Recommended Condition of Approval, ES-20: TR-3, Relocate Shuttle Stop. The AAU shuttle stop is located in a tow-away zone that is active between the hours of 4:00 p.m. and 6:00 p.m. and adjacent to a transit-only lane. AAU shall relocate the shuttle stop to the existing shuttle zone on 491 Post Street during the PM peak hour, or shall work with SFMTA to find another suitable location.

Recommended Condition of Approval, ES-20: TR-4, Shuttle Zone Enforcement. Field observation indicates that the shuttle-only passenger loading zone was occasionally used by non-shuttle vehicles. AAU should deploy staff during the peak periods to enforce exclusive use of the shuttle stop by AAU shuttle vehicles.

Recommended Condition of Approval, ES-20: TR-5, Shuttle Passenger Waiting. For this and/or the potential relocated shuttle stop serving the 620 Sutter Street and nearby residential facilities (i.e., 1153 Bush Street, 1080 Bush Street, 860 Sutter Street, and 817-831 Sutter Street), AAU should continue to conduct a peak semester, peak weekday, 7:30 a.m. to 7:30 p.m. observation/count of shuttle passengers waiting for shuttles to determine if adjacent pedestrian facilities are being blocked at certain times of the day. AAU should consider adding and improving shuttle waiting areas outside the building, and creating a waiting area inside the building, with information about when the next shuttle is expected to arrive, taking into account possible operational and safety considerations. Measures outside the building would be subject to San Francisco Department of Public Works review and approval, and could include adding benches to encourage passengers to wait closer to the building rather than at the curb.

Recommended Condition of Approval, ES-20: TR-6, Class I Bicycle Parking. AAU shall add 31 Class I bicycle parking spaces to meet the Planning Code requirement. Bicycle parking shall be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Recommended Condition of Approval, ES-20: TR-7, Class II Bicycle Parking. AAU shall provide at least 3 Class II bicycle parking spaces along Sutter Street. The Class II bicycle parking spaces shall be coordinated and reviewed by SFMTA. Given the pedestrian pooling that sometimes occurs in front of the site as students wait for shuttles, these Class II spaces may be more appropriately installed along the edges of the site or at other nearby AAU facilities (e.g., 625 Sutter Street, 655 Sutter Street, or 680 Sutter Street) on the block. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The residential use at 620 Sutter Street (ES-20) is located on the northwest corner of Sutter Street and Mason Street in the Lower Nob Hill area. The building originally housed the San Francisco YWCA and was later used as a tourist hotel. AAU changed the use to student housing with 65 rooms and a total of 129 beds and office uses. There is a shuttle bus stop directly in front of ES-20. Shuttle Routes D, H, I, Q, and R serve ES-20. No vehicle trips are generated by ES-20;[683] students use the AAU shuttle system, bicycles, and public transit. According to the San Francisco Transportation Noise Map,[684] the existing traffic noise level near ES-20 from vehicular traffic along Sutter Street and Mason Street was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. Traffic-generated noise levels along Sutter Street and Mason Street currently exceed the "satisfactory" level for a residential land use, according to the *San Francisco General Plan*.

AAU operations at ES-20 have resulted in the installation of three rooftop condenser units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[685] As discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The *General Plan* noise compatibility guidelines indicate that any new residential construction or development in areas with noise levels above 60 dBA L_{dn} should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. In areas where noise levels exceed 65 dBA L_{dn}, new residential construction or development is generally discouraged, but if it does proceed, a detailed analysis of noise reduction requirements must be done and needed noise insulation features included in the design. Tenant improvements at existing ES-20 residential building may be subject to the requirements contained in the California Noise Insulation Standards in Title 24, the California Building Code. The Building Code requires meeting an interior standard of 45 dBA L_{dn} in any habitable room where dwelling units are located in areas subject to noise levels greater than 60 dBA L_{dn}. In areas with noise levels up to 70 dBA L_{dn}, conventional construction with closed windows and fresh air supply systems or air conditioning will normally be adequate to maintain acceptable interior noise levels 45 dBA L_{dn}.

If the residential building at ES-20 does not meet the California Noise Insulation Standards, traffic noise in the area has the potential to result in unacceptable interior noise levels that could disrupt sleep. The following recommended Condition of Approval for Interior Noise Levels for Residential Uses would reduce the effect of exposure to excessive noise and meet *San Francisco General Plan* recommendations for residential uses:.

Recommended Condition of Approval, 2ES-20: NO-1, Interior Noise Levels for Residential Uses. For existing AAU residential buildings located along streets with noise levels above 60 dBA

[683] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[684] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[685] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.

L_{dn}, where the building does not already meet the California Noise Insulation Standards in California Code of Regulations Title 24, AAU shall conduct a detailed analysis of noise reduction requirements. The analysis shall be conducted by person(s) qualified in acoustical analysis and/or engineering. Noise-insulation features identified and recommended by the analysis shall be added, to meet the *San Francisco General Plan* Land Use Compatibility Guidelines for Community Noise to reduce potential interior noise levels to the maximum extent feasible.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (offices, student housing rooms, gymnasium, and swimming pool) at ES-20, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2005, when the AAU occupied the building. Area sources were estimated based on a 65 "dwelling unit," "Mid-Rise Apartments" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of zero round trips per day. There is an on-site pool hot water boiler and a domestic hot water boiler at ES-20. Table 75 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-20, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

Table 75. 620 Sutter Street (ES-20) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	2.05	0.70	0.12	0.10	0.35	0.12	0.02	0.02
Energy	0.01	0.12	<0.01	<0.01	<0.01	0.02	<0.01	<0.01
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	2.06	0.81	0.13	0.11	0.35	0.14	0.02	0.02
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

1. Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM10 and PM2.5 = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-20 is not one of those sites; therefore, AAU occupation of ES-20 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. The City's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-20 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Residential Energy Conservation Ordinance (San Francisco Housing Code Chapter 12), Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A), and required bicycle parking infrastructure in accordance with Planning Code Section 155.1-155.4. Compliance with the Residential Water Conservation Ordinance and Residential Energy Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-20 would have produced minimal construction debris. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance and CalGreen Section 5.504.4 would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-20: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure the bicycle parking spaces in accordance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-20 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-20.

Recreation

620 Sutter Street (ES-20) itself primarily features offices and student housing, but also includes an indoor gymnasium and pool. Visitors and employees of the gymnasium and pool come and go throughout the day. ES-20 reduces recreational demand created by AAU's population of students and staff. Should student residents, visitors, and employees of ES-20 seek other recreation opportunities besides the gymnasium and pool, there are three San Francisco Recreation and Park Department (RPD) facilities located within 0.25 mile of ES-20: Collis P. Huntington Park, Hooker Alley Community Garden, and Union Square, as shown on Figure 4, p. 3-63. Collis P. Huntington Park, located at California and Taylor streets, features a playground, landscaped areas, and the historic Flood Fountain.[686] Hooker Alley Community Garden (also known as Nob Hill Community Garden), is operated by volunteers and allows its members to grow produce and ornamental plants.[687] Union Square, bounded by Geary, Post, Powell and Stockton streets, is a popular tourist plaza location featuring outdoor seating, amplified sound stage area, lawns, sculptures, and a café.[688] Other publicly owned parks are within a 0.5-mile distance of ES-20, including the Tenderloin Recreation Center, Chinese Recreation Center, and Father Alfred E. Boeddeker Park.

As described in Population and Housing on p. 4-444, the capacity of ES-20 is 129 beds. The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) at ES-20 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Huntington Park, Hooker Alley Community Garden, and Union Square facilities. ES-20 facilitates AAU student and faculty recreation, along with similar facilities at 1069 Pine Street (ES-16), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-20 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous hotel land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been

[686] San Francisco Recreation and Parks, Collis P. Huntington Park. Available online at: http://sfrecpark.org/destination/collis-p-huntington-park/. Accessed on January 15, 2016.
[687] San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.
[688] San Francisco Recreation and Parks, Union Square. Available online at: http://sfrecpark.org/reservablefacility/union-square/. Accessed on January 15, 2016.

concluded that sufficient water is available to serve existing customers and planned future uses.[689] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-20. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Residential Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use may have incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[690] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-20 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[691] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[692] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

---

[689] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[690] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[691] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[692] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

Public Services

Police

ES-20 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[693] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The 620 Sutter Street building has a capacity of 129 beds (65 group-housing rooms). The change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) within the C-3-G Zoning District would not represent a substantial change in the overall population of the area. Therefore, the daytime population of the hotel would have been similar to that of student housing, and additional police protection demand would be negligible. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change of use. No substantial effect on police protection has occurred as a result of the change in use at ES-20.

Fire and Emergency Services

ES-20 is located within 3,000 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[694] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded

[693] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[694] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[695]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-20 meet the Citywide emergency transport goals.

As described above on p. 4-444, the change in use from a tourist hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU obtained a permit for inspection of the fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change of use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-20.

Libraries

The nearest public library to ES-20 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-444, the change in use from a hotel to student housing (group housing for a postsecondary educational institution) would not represent a substantial change in the daytime population of the area. The change in population would be minimal compared to the service population for the Chinatown Branch and Main Libraries. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-20.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The previous use as a tourist hotel had no effect on nearby schools because tourists' children would not be enrolled in area schools. Similarly, the change in use under AAU to student housing (group housing for a postsecondary educational institution) would not contribute to additional demand to SFUSD, because AAU students are mainly unmarried and without children. In addition, AAU does not offer family housing.[696] No change in the school-aged population would occur. For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-20.

[695] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.
[696] Academy of Art University, Student FAQs, October 2015. Available at http://www.academyart.edu/content/aau/en/faqs/faqs-student.html. Accessed on October 29, 2015.

Biological Resources

ES-20 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-20. ES-20 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-20.

Geology and Soils

Soils in the vicinity consist of loose, moist, moderate brown sand with brick fragments from the 1906 Earthquake and Fire. Approximately 13 feet below ground surface native soils begin and consist of brown, silty sandy clay. Bedrock is encountered approximately 30 feet below ground surface. Groundwater depth ranges from 16 to 35 feet below ground surface and flows south to southeast.[697] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-20 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake originating from the Hayward Fault.[698,699] ES-20 is not located within a liquefaction zone.[700] Buildings that are composed of unreinforced masonry, have a first floor or basement “soft story,” or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-20 is constructed of brick, terra cotta, and stonework on the ground floor. ES-20 is not composed of unreinforced masonry and does not have a soft story.[701,702] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the building alterations carried out after the change in use from tourist hotel to student house (group housing for a postsecondary educational institution) would not alter the building’s performance during a ground-shaking event.

---

[697] Geologica, Inc. Phase I Environmental Site Assessment for 620 Sutter Street, December 2008.

[698] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[699] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[700] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[701] City and County of San Francisco, UMB – All Report, December 1, 2014.

[702] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-20 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, security cameras, and lighting). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-20 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[703] ES-20 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-20.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-20 did not identify the presence of underground storage tanks or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes.[704] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1918, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. No PCBs or peeling paint were detected.[705] Prior to building alterations, materials in the common restrooms were tested for ACMs and none were detected.[706] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that

---

[703] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

[704] Geologica, Inc., Phase I Environmental Site Assessment for 620 Sutter Street, San Francisco, CA, December 2008.

[705] Geologica, Inc., Phase I Environmental Site Assessment for 620 Sutter Street, San Francisco, CA, December 2008.

[706] Environova, Limited Asbestos Survey, Academy of Art University, 1080 Bush Street – Common Restrooms, June 18, 2013.

tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU uses the building as a student housing, indoor pool, performance space, and fitness gymnasium. Hazardous materials that are used, stored, and disposed of at ES-20 include chemicals that are associated with pool maintenance including stripper, neutracide, chlorine, paint thinner, rust remover, muratic acid, and sanitizer.[707] These products are stored in bottles in the janitor's room; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[708] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan. Article 22 authorizes the SFDPH Hazardous Materials Unified Program Agency (HMUPA) to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-20 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-20 to ensure compliance with applicable regulations. ES-20 is enrolled in the SFDPH Hazardous Materials Unified Program Agency (HMUPA) Program.[709] Because the previous use of the building was a tourist hotel, hazardous materials use has likely increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects on mineral resources or mineral recovery sites have occurred as a result of the change in use of ES-20.

Tenant improvements at ES-20 associated with the conversion of tourist hotel space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-463. The GHG Compliance Checklist includes the City's Residential Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[710] With the implementation of applicable requirements listed in the GHG Compliance Checklist, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

[707] Academy of Art, Hazardous Materials Inventory List for 620 Sutter Street, August 6, 2015.
[708] Academy of Art, Hazardous Materials Inventory List for 620 Sutter Street, August 6, 2015.
[709] Permit numbers: EPA# CAD981436108; CERS# 10174895.
[710] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 620 Sutter Street, March 4, 2016.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-20. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-20 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change is use at ES-20 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-20 is designated “Urban and Built-up Land” by the California Department of Conservation’s Farmland Mapping and Monitoring Program.[711] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-20 has had no substantial effects on agriculture or forest resources.

[711] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank

4.2.17. 491 Post Street (ES-23)

Property Information

The 491 Post Street existing site (ES-23) is a two-story-tall, 37,730-square-foot building constructed in 1913, located on the corner of Post and Mason streets, in the Downtown/Civic Center neighborhood (Photographs 104–107). Figure 14, ES-23: 491 Post St – Existing Condition, in Appendix TDM, shows the location of this site on the corner of Mason and Post streets. The site is Lot 009 in Assessor's Block 0307. The building has a capacity of 1,063 occupants (1,053 students, 10 faculty and staff). The actual use of ES-23 is approximately 124 students and 25 faculty and staff for classrooms, offices, and an auditorium.

Prior to Academy of Art University (AAU) occupation in 2002, the building was used as a church. ES-23 is designated as City Landmark Number 177 and as a Category I building within the Kearny-Market-Mason-Sutter Conservation District.[712] AAU uses the building as an auditorium and for classrooms and offices. A 42-foot-long curb space along the frontage of the site on Post Street has been designated as a shuttle-only passenger loading zone with a "No Parking Shuttle Bus Stop" sign for the hours of 8:00 a.m. to 11:00 p.m. Monday through Friday. No shuttle service is provided to this site as of spring 2016.

The site is in the C-3-G Zoning District (Downtown General Commercial), a district having a variety of uses with Citywide functions. Single room occupancy housing and student housing are principally permitted uses in this district, as are institutional and retail sales uses. The height and bulk district is 80-130-F.

Tenant Improvements and Renovations

At some unknown time, two "First Congregational Church" neon signs and an awning were removed. AAU added a sign over the "First Congregational Church" carving above the main doors on the Post Street façade, then replaced this sign with two canvas banners flanking the pillars at the entrance. AAU also added two free-standing statues to the main façade (legalized with permits in 2011 after an NOV), reroofed the building and installed a new fire sprinkler system for the subbasement and a sprinkler monitoring system in 2011, and removed a wall sign and a free-standing sign in 2013.[713] Metal doors were replaced, and skateboard deterrents and security cameras were added without building permits.[714]

---

[712] *2011 IMP*, p. 82.

[713] Building Permits obtained for the improvements and renovations at ES-23 are: BPA #200801112355 and #201110277764 (legalize installation of two statues in front of building after NOV #200722712), #201110257607 (reroofing), #201102099892 (fire sprinkler for subbasement), #201112190941 (sprinkler monitoring system), #200811196925 and #201301188360 (non-illuminated banners), and #201301248688 (removal of wall sign and free-standing sign).

[714] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 104. 491 Post Street (ES-23).

Photograph 105. Mid-block Post Street, facing northwest.

Photograph 106. Post Street at Mason Street, facing southwest.

Photograph 107. Posted signage on 491 Post St.

Required Project Approvals

The 491 Post Street existing site (ES-23) would require a building permit under San Francisco Planning Code (Planning Code) Section 171 to change the use from a religious institution to postsecondary educational institutional use within the C-3-G Zoning District. Because the building is a designated landmark, the Historic Preservation Commission (HPC) will review any exterior or interior modifications to determine whether to issue a Certificate of Appropriateness (COA).

Plans and Policies and Land Use

ES-23 is located in the Downtown/Civic Center neighborhood. In the immediate vicinity of ES-23 there are a mix of uses including medical, hotel, commercial and ground-floor retail/restaurant. The surrounding buildings range from two to 31 stories and have predominantly hotel uses with some interspersed ground-floor retail. Directly across the street, the 490 Post Street building has ground-level retail and commercial with medical uses on the upper floors. The ES-23 building was built in 1913, is two stories, and fronts Post and Mason streets.

Post Street is a two-lane, one-way eastbound road with a bus-only lane and right-turn lane at Post and Powell streets. Limited metered parking is available on the northern side of Post Street between Mason and Powell streets, with much of the street dedicated to loading zones due to the concentration of hotel uses. Mason Street is a two-lane, one-way southbound road with similarly limited metered parking and a proliferation of loading zones.

ES-23 is located within the Kearny-Market-Mason-Sutter Conservation District, which is the center of San Francisco’s retail and tourist sectors, containing a concentration of fine shops, department stores, theaters, hotels, and restaurants. As such, it is one of the main attractions to tourists from around the country and world, as well as the prime retail district in the Bay Area. The District is further defined by the location of Union Square in its heart. The pattern of development is one of small-scale, light-colored buildings predominantly four to eight stories in height. The height and scale provide for a streetscape which is attractive to the pedestrian because of the comfortable scale and sunlit sidewalks.[715]

The zoning near ES-23 is C-3-G (Downtown General Commercial). This District covers the western portions of downtown and is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a Citywide or regional function, although the intensity of development is lower here than in the downtown core area. The C-3-R (Downtown Retail) District is located midway down Post Street between Mason and Powell streets. ES-23 is located within the Downtown Planning Area. The Downtown Plan calls for the protection and enhancement of high quality retail uses around Union Square, west of the Financial District, and maintenance of general commercial and service uses. Downtown Plan policies call for the protection of existing residential uses, including residential hotels, and other affordable housing. Height and bulk districts along both sides of Post Street between Taylor and Kearny streets is 80-130-F, which means the maximum height limits is 80–130 feet and the bulk is limited to 80-, 110-, and 140-foot diagonal dimensions.

[715] Appendix E to Article 11 of the Planning Code.

As noted above, the use at ES-23 has been changed by AAU from a religious institution to a postsecondary educational institutional use with an auditorium, classrooms, and offices. The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. The change in use of the site from a religious institution to postsecondary educational institution would not conflict with the mix of uses that are prevalent in the C-3-G District. ES-23 would require a building permit under Planning Code Section 171.

The postsecondary educational institutional use does not change the scale or neighborhood character, as limited exterior alterations to the building have occurred. AAU signage conforms to other ground-level advertising and displays that are prevalent in the area. Therefore the ES-23 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-23 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-23 is 1,063 occupants (1,053 students and 10 faculty and staff). The change in use at ES-23 from a religious institution to a postsecondary educational institution would have minimally changed the daytime population because the religious institution (i.e., church) likely had a comparable capacity. AAU is essentially replacing the church building population; therefore, the daytime population of the site would be fundamentally unchanged. Similar to the previous church population that would primarily congregate once per week, ES-23 is only used for special events and is not fully occupied on a daily basis. The remainder of the building includes classrooms and offices that represent only a small portion of the total capacity. Conservatively presuming that the building would be occupied to capacity and that all occupants were also new residents of San Francisco, the additional population growth would be minimal and represent much less than 1 percent of the total City population (829,072).[716] No substantial effect on population has occurred from the change in use at ES-23.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-23 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from a religious institution to a postsecondary educational institution at ES-23 contributed to the overall demand for AAU student and employee

[716] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

housing in San Francisco. However, the change of use at ES-23 did not result in the displacement of housing because this site was previously used as a church.

Aesthetics

ES-23 is located in the Downtown/Civic Center neighborhood and is a contributor to the Kearny-Market-Mason-Sutter Conservation District. ES-23, which was built in 1913, is two stories tall and an excellent example of a Classical Revival–style church in downtown San Francisco. ES-23 is a monumentally scaled church built in the style of "banking temples," which although physically smaller than its neighbors manages to hold its own in the dense urban setting.[717] Two AAU banners, approximately 15 feet long, flank the building entrance. Two large statues have also been placed along Post Street in front of the building. There are six street trees on Mason Street that minimize building massing, and no street trees fronting Post Street.

The pattern and development of the Kearny-Market-Mason-Sutter Conservation District is one of small-scale, light-colored buildings predominantly four to eight stories in height. The height and scale provide for a streetscape which is attractive to the pedestrian because of the comfortable scale and sunlit sidewalks. The character of the area is determined by the many fine-quality structures, among the best in the City, and supported by a number of contributory buildings. Since almost the entire area was built in less than 20 years, and the major portion in less than 10 years, buildings were constructed in similar styles and structural technology.[718] The area is a major commercial and retail center intermixed with high volume hotels and retail buildings. In general, density increases toward the Financial District in the east; moving west buildings are characterized by lower heights and massing.

The topography is steep in the north-south direction (toward the top of Nob Hill) and slopes more gently toward the east (in the direction of San Francisco Bay). View corridors are limited to streets and intersections due to the density of development. ES-23 is bordered by Mason Street to the west, Post Street to the north, and buildings to the south and east. Due to the urban character of the neighborhood, bordering roadways carry a high volume of traffic at almost all times of the day and week. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The surrounding area contains mainly high- and mid-rise buildings with office, residential, medical, and hotel functions. There is an architectural mix of older structures side-by-side with modern buildings. In general, buildings adjoin one another, extend to the sidewalk, and form a continuous façade. The buildings vary greatly in size on the subject block from the two-story ES-23 building, to the 30-story building adjacent and to the east of the existing site at 455 Post Street. Many of the buildings include ground-floor retail spaces and office, medical, or hotel uses on the upper floors.

The change in use at ES-23 has caused some changes to the building and neighborhood character. Two AAU banners flank the building's entrance and two large statues occur along the Post Street frontage. Also, AAU promotional materials are located in two glass display cases attached the building on Post Street. Nevertheless, AAU advertising and signage on ES-23 is comparable to the

[717] City and County of San Francisco, San Francisco Property Information Map, 491 Post Street. Availeble at http://propertymap.sfplanning.org/?dept=planning. Accessed October 8, 2015.
[718] Planning Code Appendix E to Article 11.

visual character of the area. Advertising located on signs, awnings, bus stops, billboards, and pole banners is prevalent within the commercial neighborhood. No other exterior changes are attributable to the AAU use. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-23.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

Exhibiting a Neoclassical/Italian Renaissance-inspired design, 491 Post Street (ES-23) was constructed between 1913 and 1915 as the home of the First Congregational Church of San Francisco. This building replaced the group's earlier Gothic Revival-style church constructed on the site in 1870 and destroyed in the 1906 Earthquake and Fire. Made of steel-reinforced concrete with terra cotta ornament, the building displays a monumental scale and symmetrical design composition. The primary entrance faces Post Street, with the secondary elevation extending southward along Mason Street. The focal point of the design is a series of giant order Corinthian columns on the façade, fluted and clad in terra cotta. The Mason Street elevation is defined by arched, deeply recessed window openings, separated by giant order attached Corinthian columns. Along the roof line, a bold, stepped cornice line defines the horizontal axis and balances the overall design.

On Post Street, the main entrance consists of a recessed entry portico, accessed via a broad stairway. Five bays span the façade, with paired, wood-paneled doors on the ground floor and large multi-light windows recessed within arched, decorative openings on the second floor. Two entrances are sheltered beneath triangular pediments, and the other three are framed beneath lintels. In addition to the giant order Corinthian columns, ornament on the façade includes attached, fluted pilasters, keystones, and other applied ornament. Windows are generally multi-light stained glass windows with aluminum awning inserts. The congregation name appears in scored concrete above the three center doors. On either side of the primary elevation, paired metal doors lead to the basement level. The secondary elevation along Mason Street mirrors the design of the primary elevation, including the use of rectangular and Palladian-style windows accented with decorative keystones. Paired wood doors with a hopper casement transom are located at the southernmost corner of the Mason Street elevation.

The main entrance leads to a rectangular narthex. Marble stairs at the western and eastern end of the narthex lead to the basement and to the second floor balcony. Large wood double-doors lead to the nave, which remains intact with the exception of the stage area. The interiors of the narthex and nave are highly intact. Original character-defining features include wood doors and trim, marble floors, coffered ceilings, crown molding, wooden pews, a second story balcony, and original light fixtures (for representative photographs refer to Photographs 108–110).

Photograph 108. 491 Post Street.

Photograph 109. 491 Post Street, Mason Street elevation.

Photograph 110. Interior nave of subject property.

Site History

The 491 Post Street (ES-23) existing site was constructed between 1913 and 1915 as the home of the First Congregational Church of San Francisco. This building replaced the group's earlier Gothic Revival-style church constructed on the site in 1870 and destroyed in the 1906 Earthquake and Fire. The First Congregational Church owned and occupied the building from the 1910s for nearly 90 years, until 2001, when the building was sold due to the congregation's declining numbers and need for a smaller space.[719] On the occasion of the building's sale, the *San Francisco Chronicle* noted that

[719]David R. Baker, Final Service Is Sunday at First Congregation, Historic Building Sold, Worshippers Seek New Home, *San Francisco Chronicle*, April 23, 2001.

the First Congregational Church had been established in 1850 by a former missionary determined to bring God to the godless masses of a Gold Rush boomtown. Members first met in a small, wooden building on Jackson Street, between Stockton and Powell streets, before moving to the current site, at the corner of Mason and Post streets. Its main hall, with a gently sloping floor and U-shaped balcony, can seat 1,200 comfortably.[720]

As recently as the 1960s, the article noted, the congregation's numbers held steady, with more than 700 well into the postwar period. As the years wore on, however, congregation members "drifted off to the suburbs or other parts of the city. The crowds—even supplemented by tourists wandering in from their hotels—shrank. The church now [as of 2001] has approximately 60 active members."[721]

Faced with a monumental, large-capacity building and a dwindling congregation,

> The magnificent home gradually became a burden. … Church members decided to put the building up for sale and hunt for a more appropriate place. 'It's a wrenching sort of thing and yet we're much too small to stay here,' said Ed Steiner, 82, who joined the congregation in 1950. [722]

The building was occupied by AAU in 2002.

California Register of Historical Resources Evaluation

The 491 Post Street (ES-23) building has multiple designations. It is an Article 10 designated landmark as well as an Article 11 designated contributor (Category I) to the Kearny-Market-Mason-Sutter Conservation District, codified and adopted in Appendix E of Article 11 of the Planning Code. In addition, the property is individually eligible for the National Register of Historic Places (NRHP) under Criteria A and C.

As part of the current study, the property also appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, for its association with a pioneering church in downtown San Francisco, which occupied the site for over 130 years, nearly 90 of those in the extant building at 491 Post Street. The period of significance for eligibility under CRHR Criterion 1 is 1913 to 1965. In addition, the property appears CRHR eligible under Criterion 3, as an outstanding example of the Neoclassical/Italian Renaissance styles applied to ecclesiastical architecture and as the work of master architects James and Merritt Reid. The period of significance for eligibility under CRHR Criterion 3 is 1913–1915.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[723] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship,

[720] Ibid.
[721] Ibid.
[722] Ibid.
[723] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

Feeling, and Association (each aspect is defined in National Register Bulletin 15). The subject property retains integrity and remains eligible for the NRHP and for the CRHR.

Character-Defining Features Summary

Exterior

- Monumental scale, two-story rectilinear massing
- Five-bay façade, with delineated treatment of ground story (with entrances) and windows on second story
- Neoclassical style, in ornamental program, building composition and massing
- Applied terra cotta sheathing and ornament
- Great order Corinthian columns (free-standing and attached)
- Horizontal axis defined by broad wrap-around cornice line
- Attenuated Palladian-style windows, accented with keystones and applied ornament
- Scored concrete to resemble masonry and quoining
- Double-height, paneled wood doors

Interior

- Spatial relationship of entrance hallway to open, sloped auditorium/nave
- Neoclassical/Italian Renaissance styling and ornamental program
- Decorative details such as paneled wood doors with decorative trim, use of marble and crown molding
- Coffered ceiling
- Original wooden pews
- Second-story balcony
- Original decorative hanging and attached light fixtures

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Statues: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Skateboard Deterrents: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Statues: The project does not comply with Rehabilitation Standard No. 2. Installation of the statues resulted in the removal of the original concrete blocks that framed the entrance steps, as well as damage to materials of the original exterior walls. The two original blocks contributed to the proportional, symmetrical design of the façade and represented distinctive character-defining materials.

Signage: The project does not comply with Rehabilitation Standard No. 2. Given the quality of the architectural design, by master San Francisco architects James and Merritt Reid, the banner signs alter character-defining features of the façade. The banner signs project from the façade's projecting end bays, which frame and balance the more ornate, recessed center bays. In their current location, the banner signs introduce a visual element that interrupts the balanced, symmetrical design of the five-bay façade, which is considered a character-defining feature.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 2. Although this change resulted in minimal damage to historic materials, the skateboard deterrents are minimal in scale and appearance and do not unduly alter character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Statues: The project does not comply with Rehabilitation Standard No. 3. The statues introduce a modern conjectural element that is inconsistent with the property's historic character, significance, and Neoclassical/Italian Renaissance Revival style.

Signage: The project does not comply with Rehabilitation Standard No. 3. The size and location of banner signs on the façade introduces an element that is not representative of the property's historical appearance, use, or significance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 3. The skateboard deterrents are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Statues: The project does not comply with Rehabilitation Standard No. 5. Installation of the statues resulted in the removal of original concrete blocks that framed the steps on each side, as well as the destruction of historic exterior wall fabric. These features represented distinctive materials and character-defining features that contribute to conveying the property's historic significance.

Signage: The project does not comply with Rehabilitation Standard No. 5. The project resulted in the installation of large mounting brackets directly into historic wall materials. The project is likely to have resulted in damage to wall materials that characterize the property through their removal or destruction as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and character-defining features.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 5. The installation of the skateboard deterrents likely resulted in some damage to character-defining features. Overall, these character-defining features still retain the distinctive qualities that convey their historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Statues: The project does not comply with Rehabilitation Standard No. 9. The statues rest on square pillars, which are attached to the exterior wall of the building, and climb over one story in height. Given the Neoclassical/Italian Renaissance style of the building, and its purposeful, balanced proportional design and massing, the one-story statues are incompatible with the building. Although they are not attached to the building (their bases are), they are not compatible with the historic features of the façade. Further, though the statues are clearly differentiated, they are composed of metal, which is incompatible with the historic sheathing and ornamental materials that characterize the property.

Signage: The project does not comply with Rehabilitation Standard No. 9. Given the quality of the architectural design, by master architects James and Merritt Reid, the banner signs detract from the design of the primary façade. The projecting side bays on which the signs are mounted were designed to balance and frame the more ornate center bays. In their current location, the banner signs introduce a visual element that interrupts the balance and proportions of the façade design, which is considered a character-defining feature.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 9. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Statues: The project complies with Rehabilitation Standard No. 10. Although installation of the statues may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the banner signs may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 10. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Article 11 Analysis

According to Article 11, Appendix E, of the Planning Code, buildings within the Kearny-Mason-Market-Sutter Conservation District typically feature massing that is a vertically oriented rectangle. The two-story rectilinear massing of the subject property is consistent with the architectural features of contributors to the Kearny-Mason-Market-Sutter Conservation District. In their current location, the two banner signs introduce a visual feature that interrupts the vertical design composition of the five-bay façade and detracts from the primary façade.

Furthermore, the introduction of projecting signs such as banners at columns or bays is discouraged in Article 11, Appendix E, of the Planning Code, for properties within the Kearny-Mason-Market-Sutter Conservation District; such signs obscure character-defining features, as exhibited on the subject property, and are therefore not recommended.[724]

[724] San Francisco Planning Department, *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*, Historic Preservation Design Standards, June 2009, p. 5.

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 491 Post Street (ES-23) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-23: HR-1, Signs and Statues. The banner signs and statues shall be removed, areas of damage repaired, and the original appearance restored and refinished to match existing in materials and appearance. If a new sign is to be installed, it shall be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and designed and placed to comply with applicable Article 11 guidelines.

Cultural and Paleontological Resources

Building alterations at ES-23 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-23 is located on the southeast corner of the intersection of Post and Mason streets in the Union Square area of the Downtown/Civic Center neighborhood. The two-story building was built in 1913. This site was previously used as a religious institution until AAU occupied it in 2002. AAU postsecondary educational institutional use at ES-23 encompasses an auditorium, classrooms, and offices (approximately 37,730 gross square feet). On a typical day there are approximately 124 students and 25 faculty and staff members.

No vehicle parking is provided on site. There are five doorways into the building and a side entry into the basement of the building along Post Street. Three doorways on Post Street provide access to the main lobby area, and two side doorways provide access to the mezzanine level of the building. There are two bicycle racks (20 Class II spaces) in the basement of the building, accessible through the main lobby and down the stairs. There is a 42-foot-long shuttle-only passenger loading zone on the south side of Post Street between Mason and Powell streets, but since 2010 shuttle routes have been revised and Route H no longer stops at this location. No shuttle service is provided as of spring 2016. Along Post Street in front of the AAU site there is also one commercial loading space (about 20 feet long) and a tour bus zone (about 20 feet long), which extends to Powell Street for a total of 200-foot-long tour bus zone.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at ES-23 generates approximately 268 person trips (118 inbound trips and 150 outbound trips) and 24 vehicle trips (ten inbound trips and 14 outbound trips) during the weekday PM peak hour.

Traffic

ES-23 is located on Post Street between Mason Street and Powell Street. There are eight AAU sites clustered in the lower Nob Hill and Downtown/Civic Center neighborhoods, along Pine, Bush, Sutter, and Post streets: two sites along Pine Street (1055 Pine Street [ES-17], 1069 Pine Street [ES-16]), two sites along Bush Street (1080 Bush Street [ES-12], and 1153 Bush Street [ES-11]), three sites along Sutter Street (620 Sutter Street [ES-20], 817-831 Sutter Street [ES-14], and 860 Sutter Street [ES-13]), and one site along Post Street (491 Post Street [ES-23]). The features of Mason Street are described in detail above under 620 Sutter Street (ES-20) and summarized here. The following includes a discussion of Post Street and Powell Street in the vicinity of the site. Transit and shuttle traffic is discussed below.

Mason Street is a north-south street that runs between Jefferson Street and Market Street. In the vicinity of the AAU sites, Mason Street has two southbound lanes and metered parking on both sides of the street.

Post Street is an east-west downtown residential street that runs between Presidio Avenue and Market Street. In the vicinity of ES-23, Post Street has two eastbound vehicle lanes, one transit-only lane, and metered parking on both sides of the street. The parking lane along the north curb turns to a travel lane during the AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p.m. to 6:00 pm.) peak periods, increasing the total number of travel lanes to two during this period. The *San Francisco General Plan* classifies Post Street as a Transit Preferential Street (Secondary Transit Street) and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Post Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Powell Street is a north-south street that runs between The Embarcadero and Market Street. In the vicinity of the AAU sites, Powell Street has one travel lane in each direction shared with a cable car track and metered parking on both sides of the street. Left turns are prohibited along Powell Street to reduce conflicts with cable cars. The *San Francisco General Plan* classifies Powell Street as a Transit Preferential Street (Transit Oriented Street) and as a Neighborhood Pedestrian Street (Neighborhood Commercial Street).

The postsecondary educational institutional use at ES-23 adds 24 vehicle trips (ten inbound and 14 outbound) to adjacent streets during the PM peak hour. Based on this level of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU’s use of ES-23.

Transit

The AAU postsecondary educational institutional use at ES-23 generates approximately 109 transit trips during the PM peak hour, 47 trips in the inbound direction and 62 trips in the outbound direction. ES-23 is served by two Muni bus routes (2-Clement, 3-Jackson) along Post Street; six bus routes (8-Bayshore, 8AX-Bayshore “A” Express, 8BX-Bayshore “B” Express, 30-Stockton, 45-Union/Stockton, and 76X-Marin Headlands Express), which are temporarily rerouted to travel along Mason Street due to the Central Subway construction; and two cable car routes (Powell–Mason and Powell-Hyde Cable Car lines) along Powell Street. The nearest transit stops to ES-23 are located at the Post Street/Powell Street intersection (for the 2-Clement and 3-Jackson); at the Geary Street/Mason Street intersection (for the 8-Bayshore, 8AX-Bayshore “A” Express, 8BX-Bayshore

"B" Express, 30-Stockton, 45-Union/Stockton and 76X-Marin Headlands Express); and at the Geary Street/Powell Street intersection (for Powell-Hyde and Powell-Mason cable car lines). None of the bus stops has a shelter or service information (see Figure 8, Muni Transit Network for ES-10 through 14, ES-16, ES-17, ES-20, and ES-23, on p. 4-255). The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 76.

The 109 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-23 are distributed to several routes. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, this increased transit demand, even in combination with 24 transit trips from other nearby AAU sites under analysis (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], and 1055 Pine Street [ES-17]), has not made a substantial contribution to the existing transit service in the area. The AAU shuttle zone is adjacent to the transit-only lane on Post Street, which is used by Muni bus routes 2-Clement, 3-Jackson, and 76X-Marin Headlands Express. The AAU shuttle service to the site has not substantially conflicted with the operation of this transit-only lane because Muni lines 2-Clement and 3-Jackson operate with a combined frequency of every six minutes during the PM peak hour, and AAU shuttle buses (Route M) were observed to pull into the designated shuttle bus zone fully without blocking transit lane. (The 76X-Marin Headlands Express operates on Sundays and holidays only.)

Shuttle

The postsecondary educational institutional use at ES-23 generates approximately 55 shuttle riders during the PM peak hour, 25 riders in the inbound direction and 30 riders in the outbound direction. Shuttle demand is higher at different times of the day for this site, depending on class scheduling. This site was served by one shuttle bus route (H) in 2010, with 15-minute headways throughout the day. The total seating capacity at that time for Route H was 234 seats in the PM peak hour. Route H operated at 63 percent capacity at the MLP (466 Townsend Street) during the PM peak hour, but at 126 percent capacity during the shuttle peak hour. As of spring 2015, no regular shuttle service is provided to this site. Spring 2015 capacity utilization data is unavailable. Although Routes G, H, and Hayes Express also run on Post Street, they do not stop at ES-23 because Post Street is too congested for shuttles to serve the site efficiently.

Based on the 2015 shuttle capacity, the 28 PM peak hour shuttle riders generated at this site during the PM peak hour are likely accommodated on Express Route #1. Since shuttle service is no longer provided to this site, a recommended Condition of Approval to assess and monitor shuttle bus demand and if needed to provide a new shuttle service is recommended below.

There was no designated shuttle stop for this site in 2010. To ride a shuttle bus, students were asked to flag a driver to stop for service in front of the building. Since the spring semester in 2011, a 42-foot-long curb space along the frontage of the site on Post Street has been designated as a shuttle-only passenger loading zone with a "No Parking Shuttle Bus Stop" sign for the hours of 8:00 a.m. and 11:00 p.m. Monday through Friday.

Table 76. 491 Post Street (ES-23) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
2 – Clement	Clement and 14th Ave to Ferry Plaza via Clement and Sutter	12	20	12	240	Sutter St/ Powell St	76%
3 – Jackson	Presidio and California to Sansome and Sutter via Jackson, Fillmore, and Sutter	12	12	12	185	Sutter St/ Taylor St	58%
8 – Bayshore	City College to Kearny and North Point via U.S. 101	7.5	9	7.5	N/A	N/A	N/A
8AX – Bayshore "A" Express	Columbus and Pacific to Geneva and Schwerin via U.S. 101	6	N/A	7	568	Harrison St/ 6th St	75%
8BX – Bayshore "B" Express	City College to Kearny and North Point via U.S. 101	6	N/A	7	480	Geneva Ave/ Paris St	63%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St, and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
76X – Marin Headlands Express	Market and Sansome to 1st St and Mitchell via Golden Gate Bridge, Lombard, Sutter, and Post	N/A	60 (Sundays and Holidays Only)	60 (Sundays and Holidays Only)	N/A	N/A	N/A
Powell-Mason	Fisherman's Wharf to Powell and Market via Mason and Powell	10	8	8	N/A	N/A	N/A
Powell-Hyde	Victorian Park to Powell and Market via Hyde and Powell	10	8	8	N/A	N/A	N/A

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The 2-Clement and 3-Jackson bus lines operate along the Post Street in the transit-only lane, but no substantial conflicts between AAU shuttle buses and Muni vehicles were noted in 2015. Post Street is a designated bicycle route (Route 16). During field observation in 2015, no substantial conflicts between AAU shuttle buses and bicycle traffic was noted. This is likely due to the relatively low volumes of bicycle traffic observed.

Pedestrian

The AAU postsecondary educational institutional use at ES-23 generates approximately 239 pedestrian trips: 75 walking, 109 transit, and 55 shuttle trips during the PM peak hour. The 28 shuttle walking trips are short in length, from the building entrance to the shuttle zone on Post Street in front of the building. Mason, Geary, and Post streets are designated as High Injury Corridors under the City's Vision Zero Improvement Plan.[725] Intersections near this site have well-defined crosswalk markings, pavement delineations, and traffic lights. The Mason Street/Post Street intersection does not have pedestrian crossing signal heads. Sidewalks along Post Street and Mason Street are approximately 16 and 14 feet wide, respectively. There is no curb cut bordering the site. The primary pedestrian access to the site is from Post Street through the three center doors which lead to the main lobby area. Two side doors on Post Street lead to the mezzanine level. A side entry into the basement is located on Post Street on the west side of the building.

The land uses in the area are a mix of residential, commercial, and hotel uses. Pedestrian volumes were observed to be generally moderate in the vicinity of the site, and pedestrians were observed to move freely in the sidewalks directly fronting the site. Pedestrian volumes at crosswalks can be moderate to high at times, as the other three corners of this intersection have a JW Marriott Hotel and a medical office building at 490 Post Street, and this location is only one block from Union Square. There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of the site. No instances of pedestrian-vehicle conflicts at crosswalk locations were observed.[726]

The 239 pedestrian trips at ES-23 in combination with the 479 pedestrian trips from other nearby existing AAU sites (i.e., 1153 Bush Street [ES-11], 1080 Bush Street [ES-12], 860 Sutter Street [ES-13], 817-831 Sutter Street [ES-14], 620 Sutter Street [ES-20], 1069 Pine Street [ES-16], and 1055 Pine Street [ES-17]) have added pedestrian volumes in the area, but given that these pedestrian trips are spread onto multiple streets, they are accommodated on the adjacent pedestrian facilities (16-foot-wide sidewalks along Post Street).

Bicycle

The postsecondary educational institutional use at ES-23 generates five bicycle trips during the PM peak hour, two trips in the inbound direction and three trips in the outbound direction. Bicycle Route 16 is a Class III bike route that runs along Post Street and provides direct access to the site. Route 16 connects to Route 45 on Steiner Street to the west and to Route 50 on Market Street to the east. There are two bicycle racks in the basement of the building accessed through the main lobby and down the

[725] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.
[726] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.

stairs, providing a total of 20 Class II bicycle parking spaces.[727] Bicycles were observed to be locked to street signs along Post Street. The site's six PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area.

This site generates a bicycle parking demand of approximately seven spaces, which are generally accommodated in the existing 20 bicycle parking spaces.[728] Given the location of the existing bicycle parking locations (i.e., basement), a recommended Condition of Approval is suggested to relocate the bicycle parking spaces to a more accessible location. No bicycle parking is required under the Planning Code for this site.

Loading

The AAU postsecondary educational institutional use at ES-23 generates approximately four daily truck trips, which equates to a loading demand of less than 1 (approximately 0.2) trips in an average or peak demand hour. The site does not have any off-street parking or loading spaces. There are freight loading (yellow) zones adjacent to ES-23 along Mason and Post streets, including an approximately 180-foot-long yellow zone on Mason Street and an approximately 20-foot-long yellow space (one van-size vehicle) on Post Street.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. Approximately 80 percent of the ten yellow spaces (nine spaces on Mason Street and one space on Post Street, assuming each vehicle occupies an approximately 20-foot-long space) were occupied with freight/delivery vehicles. Commercial vehicles making deliveries to this site have to find available on-street parking or loading spaces in the vicinity. Due to the limited number of daily delivery activities related to the institutional use, loading demand is accommodated on-street near the site.

Garbage collection at the site occurs on the south side of Post Street, next to the entrance for the site. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection along Post Street occurs twice a week in the late night hours.

Parking

The AAU institutional use at ES-23 generates a parking demand of 14 parking spaces (two spaces by faculty/staff and 12 spaces by commuter students). The site does not provide any off-street parking spaces. Therefore, any students or staff who drive to ES-23 are required to park in nearby on-street spaces or off-street parking garages. The on-street and off-street parking survey data for this and other AAU sites is presented in Tables 61 and 62 under the 1153 Bush Street (ES-11), above. On-street parking occupancy in the general surrounding area bounded by Hyde Street to the west, Pine Street to the north, Powell Street to the east, and Post Street to the south during the midday was observed to be moderate to high, averaging about 86 percent during the midday period. There is no general parking provided in the immediate vicinity of this AAU site along Post Street between Mason and Powell streets, or along Mason and Powell streets between Post and Geary streets. The nearest

[727] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[728] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

block with general parking (Mason Street between Bush and Sutter streets) was observed to be 100 percent occupied during the midday peak period. Off-street parking facilities in the area include 433 Mason Street and 500 Post Street, the Mason O'Farrell parking garage at 325 Mason Street, the Union Square parking garage at 569 Post Street, and 415 Taylor Street. Parking occupancy at off-street parking facilities was not observed.

Some of the demand for 15 parking spaces related to the postsecondary educational institutional use at ES-23 is met by nearby on- or off-street parking facilities. However, these spaces are limited in amount and the AAU use at this building could have potentially added to the overall parking demand in the area. Transportation Demand Management strategies are part of a recommended Condition of Approval for all AAU sites (see p. 3-28 and Appendix TDM at the end of this Memorandum) to encourage AAU to reduce staff and faculty vehicle trips and parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #3 (1067 Post Street) is the closest station to the AAU site, approximately 0.4 mile west of the site. From the station, vehicles are able to access the AAU site via Post Street and would be able to park along Post Street.

Existing Constraints and Proposed Improvements

Based on the above discussion, constraints on the AAU use of ES-23 include an inconvenient location of bicycle parking and the need for adequate shuttle zone space if the shuttle stop at 860 Sutter Street is relocated. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-23: TR-1, Bicycle Parking. AAU reports the presence of two bicycle racks (20 Class II spaces) in the basement of the building. AAU shall relocate these racks to the ground floor in a more convenient location and add signage to direct students to the bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Recommended Condition of Approval, ES-23: TR-2, Reconfigure Curb Space to Accommodate Relocated Shuttle Stop. If the recommended Condition of Approval in the discussions of 860 Sutter Street (ES 13) and 620 Sutter Street (ES-20) is implemented, the shuttle zone along Post Street at the 491 Post Street site would be required to increase in size, subject to SFMTA approval, from 40 feet to 80 feet to accommodate the additional six routes (E, G, H, I, M, and Sutter Express). With the potential shuttle zone expansion, the commercial loading space in front of the 491 Post Street site would have to be relocated to the west, shortening the tour bus zone along Post Street by 20 feet. All changes to the curb zone shall be reviewed and approved by SFMTA.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 491 Post Street site (ES-23) is at the southeast corner of Post and Mason streets in the Union Square area. This site was previously used by a religious congregation until AAU changed the use to institutional in 2002. AAU currently uses the building as an auditorium, and for classroom and office uses. There was no designated shuttle stop for this site until the 2011 spring semester, when a 40-foot-long curb space on the south side of Post Street between Mason and Powell streets was designated as a shuttle-only passenger loading zone serving Route D. However, as of 2015, there are no AAU shuttles serving ES-23. According to the San Francisco Transportation Noise Map,[729] the existing traffic noise level near ES-23 from vehicular traffic along Post and Mason streets was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-23. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-23 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-23 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-23.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU and continue to be compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-23 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as would fixed noise sources at the site; therefore, the change in use at ES-23 would not have exceeded the standards established by the City for effects on sensitive receptors near ES-23.

Vehicular traffic noise at ES-23 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 3,153 trips per day.[730] According to the San Francisco Transportation Noise Map,[731] the existing traffic noise level near ES-23 from vehicular traffic along Post and Mason streets was approximately 75 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-23 by AAU contribute approximately 47.1 dBA L_{dn} to local traffic noise levels. When the ES-23 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-23 has not substantially increased vehicular traffic noise near the site.

[729] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[730] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[731] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (auditorium, classrooms, and offices) at ES-23, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2001, when AAU occupied the building. Area sources were estimated based on a 37,730-square-foot "Junior College" land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 268 round trips per day. There are no on-site generators or boilers at ES-23. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 2000 was conservatively assumed for ES-23. Table 77 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-23, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-23 is not one of those sites; therefore, AAU occupation of ES-23 has not resulted in increased health risks for nearby sensitive receptors.

Table 77. 491 Post Street (ES-23) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	1.05	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	<0.01
Energy	0.03	0.28	0.02	0.02	<0.01	0.05	<0.01	<0.01
Mobile	3.90	6.50	1.27	0.44	0.70	1.23	0.22	0.08
Total Emissions	4.98	6.78	2.58	0.46	0.89	1.28	0.22	0.22
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

1. Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; NOx = nitrogen oxides; PM10 and PM2.5 = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-23 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-23 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-23: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-23 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-23.

Recreation

As shown on Figure 4, p. 3-63, 491 Post Street (ES-23) is located within 0.25 mile of three San Francisco Recreation and Park Department (RPD) facilities: Hooker Alley Community Garden, Union Square, and Father Alfred E. Boeddeker Park. Hooker Alley Community Garden (also known as Nob Hill Community Garden), is operated by volunteers and allows its members to grow produce and ornamental plants.[732] Union Square, bounded by Geary, Post, Powell and Stockton streets, is a popular tourist plaza location featuring outdoor seating, amplified sound stage area, lawns, sculptures, and a café.[733] Alfred E. Boeddeker Park, at 295 Eddy Street, features a basketball half-court, swings, slides, play structures, and a community clubhouse.[734] Other publicly owned parks are within a 0.5-mile distance of ES-23, including the Tenderloin Recreation Center, Collins P. Huntington Park, and St. Mary's Square.

As described in Population and Housing on p. 4-476, the capacity of ES-23 is 1,063 occupants. The change in use from religious institution to postsecondary educational institution at ES-23 has minimally changed the daytime population of the area because the religious institution (i.e., church) likely had a comparable capacity. Therefore, the change in population, if any, is considered a minimal increase compared to the service population for the Hooker Alley Community Garden, Union Square, and Alfred E. Boeddeker Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-23 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous institutional land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[735] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-23. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

---

[732] San Francisco Recreation and Parks, Hooker Alley (Nob Hill) Community Garden. Available online at: http://sfrecpark.org/destination/hooker-alley-community-garden/. Accessed on January 15, 2016.

[733] San Francisco Recreation and Parks, Union Square. Available online at: http://sfrecpark.org/reservablefacility/union-square/. Accessed on January 15, 2016.

[734] San Francisco Recreation and Parks, Father Alfred E. Boeddeker Park. Available online at: http://sfrecpark.org/destination/father-alfred-e-boeddeker-park/. Accessed on January 15, 2016.

[735] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[736] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-23 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[737] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[738] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-23 is located within the Central Police District of the San Francisco Police Department (SFPD). The Central District Police Station is located at 766 Vallejo Street, but the nearest police station is the Tenderloin Task Force Police Station at 301 Eddy Street. The district covers approximately 1.8 square miles with a daily population ranging from 75,000 to over 350,000 because of tourists, workforce/commuters, and shopping areas. In 2013 (the most recent data available), there were 666 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 5,830 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Central District.[739] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

---

[736] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[737] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[738] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[739] San Francisco Police Department, Annual Report 2013, p. 114. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The 491 Post Street building has a capacity of 1,063 occupants (1,053 students and 10 faculty and staff). The change in use from a religious institution to postsecondary educational institution would represent a change in the daytime population of the area, because church goers would primarily be present only on Sundays. However, the auditorium is currently only used for special events and is not fully occupied on a daily basis. The classrooms and offices within ES-23 represent a small portion of the total capacity. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change of use at ES-23.

Fire and Emergency Services

ES-23 is located within 3,000 feet of Fire Station No. 3 (1067 Post Street) and Fire Station No. 41 (1325 Leavenworth Street). Fire Station No. 41 consists of a single fire engine.[740] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 3 responded to 3,286 non-emergency calls with an average response time of 8:03 minutes, with 90 percent of non-emergency calls responded to in under 14:26 minutes. Fire Station No. 3 responded to 6,981 emergency calls with an average response time of 3:04 minutes, with 90 percent of emergency calls responded to in under 4:16 minutes. In 2011, Fire Station No. 41 responded to 448 non-emergency calls with an average response time of 7:27 minutes, with 90 percent of non-emergency calls responded to in under 14:08 minutes. Fire Station No. 41 responded to 1,796 emergency calls with an average response time of 2:57 minutes, with 90 percent of emergency calls responded to in under 4:06 minutes.[741]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-23 meet the Citywide emergency transport goals.

As described above on p. 4-476, the change in use from a religious institution to postsecondary educational institution could represent a change in the daytime population of the area. However, because the building would not be at capacity most of the time, similar to a church's weekly service schedule, it would not represent a substantial change in the daily population of the building. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire sprinkler system for the subbasement and a sprinkler monitoring system, improving fire safety at the property. No measurable changes in response times have occurred since the change in

[740] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[741] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

use. No substantial effect on fire or emergency medical services has occurred as a result of the change of use at ES-23.

Libraries

The nearest public library to ES-23 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-476, the change in use would not represent a substantial change in daytime population. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change of use at ES-23.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as postsecondary educational institution would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-23.

Biological Resources

ES-23 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-23. ES-23 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. No substantial effect on biological resources has occurred as a result of the change in use at ES-23.

Geology and Soils

ES-23 is underlain by a variable thickness of artificial fill that likely relates to debris from the 1906 Earthquake and Fire.[742] Below the fill is well-sorted, fine to medium grained dune sand. The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is typically highly permeable. Within San Francisco, the dune sand reaches

[742] Geologica, Inc., Phase I Environmental Site Assessment for 491 Post Street, March 2003.

thicknesses of up to 150 feet and is underlain by highly fractured bedrock. Groundwater in the general vicinity of the site is approximately 16 to 36 feet below ground surface and flows south and southeast, corresponding to the topography.[743] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-23 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake originating from the Hayward Fault.[744, 745] ES-23 is not located within a liquefaction zone.[746] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-23 is a two-story concrete building that does not include unreinforced masonry or a soft story.[747, 748] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the change in use and associated building alterations would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-23 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., reroofing and doors). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-23 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted

---

[743] Geologica, Inc., Phase I Environmental Site Assessment for 491 Post Street, March 2003.
[744] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[745] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[746] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[747] City and County of San Francisco, UMB – All Report, December 1, 2014.
[748] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

by the SFPUC through the year 2100.[749] ES-23 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-23.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-23 did not identify the presence of underground storage tanks or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes.[750] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1913, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[751] Prior to building alterations, materials were tested for ACM and LBP. ACM was detected on ceiling materials and LBP was discovered in the basement and on the stairwell walls.[752] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-23 is currently used as an auditorium and for classrooms and offices. Hazardous materials that are used, stored, and disposed of at ES-23 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-23.

---

[749] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[750] Geologica, Inc., Phase I Environmental Site Assessment for 491 Post Street, March 2003.
[751] Geologica, Inc., Phase I Environmental Site Assessment for 491 Post Street, March 2003.
[752] RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 491 Post Street, December 14, 2010.

Tenant improvements at ES-23 associated with the conversion of a religious institution to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-494. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[753] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-23, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-23. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-23 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-23 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-23 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[754] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-23 has had no substantial effects on agriculture or forest resources.

---

[753] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 491 Post Street, March 4, 2016.

[754] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.18. 77 New Montgomery Street (ES-27)

Property Information

The 77 New Montgomery Street existing site (ES-27), also known as 79 New Montgomery Street, is a five-story, 147,509-square-foot building constructed in 1907 (Photographs 111–114). The building is located at the corner of New Montgomery and Mission streets, in the Financial District neighborhood. Figure 15, ES-27: 77 New Montgomery St – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The site is Lot 014 in Assessor's Block 3707. The building has a capacity of 908 occupants (741 students, 167 faculty and staff).

Prior to AAU occupation in 1996, the building was used as an office. AAU currently uses the building for administrative offices, classrooms, labs/art studios, a theater, and a ground-floor gallery. Currently, two AAU shuttle bus routes (G and Hayes Express) stop at the 44-foot-long white passenger-loading zone on the south side of Jessie Street between New Montgomery and Second streets.

The site is zoned C-3-O(SD) (Downtown Office - Special Development) and is within the New Montgomery-Mission-Second Street Conversation District. Office and institutional uses are principally permitted with some related retail and service uses. The height and bulk district is 150-S. ES-27 is located within the Central South of Market (SoMa), Transit Center District, and Downtown Planning Areas. It is also within the Yerba Buena Community Benefit District.

Tenant Improvements and Renovations

AAU added four electric blade signs at the building's corners and installed 17 awnings above the ground-floor windows along New Montgomery, Mission, and Jessie streets. In addition, in 2000 AAU reroofed the building, replaced concrete on encased beams, and in 2012 installed a new fire alarm system. AAU painted signs in 2011 without a building permit and subsequently removed them in 2015.[755] Security cameras were added, a secondary entrance door was installed, and a roll-up door were replaced without building permits.[756] AAU installed six rooftop condenser units without building permits.

Required Project Approvals

The 77 New Montgomery Street existing site (ES-27) would require a building permit under San Francisco Planning Code (Planning Code) Section 171 to change the use from office to postsecondary educational institution within the C-3-O(SD). A Major Permit to Alter is required under Planning Code Article 11 to legalize or modify past building alterations performed without benefit of permit.

[755] Building Permits obtained for the improvements and renovations at ES-27 are: BPA #200011286673 (reroofing), #201104284951 (concrete replacement), #200106282578 (awnings), #9305460/#9305461/9305463 (signs), #201105095673 (paint sign, permit never issued); #201204248995 (fire alarm system); and #201509247946 (remove painted wall sign).

[756] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 111. 77 New Montgomery Street (ES-27).

Photograph 112. Mid-block New Montgomery Street, facing northeast, toward the Palace Hotel and Market Street.

Photograph 113. Mid-block New Montgomery Street, facing southwest.

Photograph 114. Mid-block Mission Street, facing northeast toward 2nd Street.

Plans and Policies and Land Use

ES-27 is located in the Financial District neighborhood. In the immediate vicinity of ES-27 there are a mix of uses including commercial, hotel, and ground-floor retail/restaurant. The surrounding buildings range from five to 15 stories and have predominantly office uses above ground-level retail/restaurant uses.

The ES-27 building is five stories and fronts the entirety of New Montgomery Street between Jessie and Mission streets, and fronts approximately three-quarters of Jessie and Mission streets between New Montgomery and Second streets. ES-27 is one block south of Market Street, the major transportation corridor through downtown San Francisco. Metered parallel parking is permitted along New Montgomery Street, Mission Street, Jessie Street, and Second Street. Motorcycle and scooter parking is also located on Jessie Street. Parking is limited on surface streets with many loading zones, bus stops, and 15-minute parking signs.

ES-27 is located in the New Montgomery-Mission-Second Street Conversation District. Many of the buildings in the Conservation District, including ES-27, were built between 1906 and 1930. More than two-thirds of the buildings are three- to seven-story brick or concrete commercial loft buildings constructed during the 5 years after the 1906 Earthquake and Fire. Most buildings have either square or rectangular massing. The eight-story Palace Hotel is located on the city block bordered by Market, New Montgomery, Jessie, and Annie streets to the northwest of ES-27.

ES-27's current use is an administrative building for AAU, with offices, classrooms, labs/studios, a theater, and a publicly accessible gallery on the ground-floor. The ground-floor of ES-27 fronting New Montgomery and Mission streets showcases various student works and AAU program opportunities.

The zoning near ES-27 is C-3-O(SD) (Downtown Office [Special Development]). The C-3-O(SD) zoning boundaries are approximately located south of Market Street, east of Annie Street, west of Steuart Street, and north of Folsom Street. The area comprises the southern side of the core central business district, and is similar to and generally indistinguishable from the C-3-O District in terms of uses and character. The area is centered on the Transbay Transit Center. This District permits densities that exceed those in the C-3-O District and contains the tallest height limits in the City, reflecting its unparalleled public transportation access and geographically central position in the downtown."[757] ES-27 is located within the Central SoMa, Transit Center District, and Downtown Planning Areas. The Central SoMa Area Plan has not been approved. The Transit Center District Plan's objective is to build onto the Downtown Area Plan and support the next generation of downtown growth. The Central SoMa Area Plan proposes to support transit-oriented growth, shape the area's urban form, maintain vibrant economic and physical diversity, and support growth with improved streets and open space. The Downtown Area Plan contains objectives and policies to guide decisions affecting the downtown area. The Plan foresees a downtown known for a center of ideas, services, and trade, and as a place for stimulating experiences. The use of ES-27 as a postsecondary educational institution is consistent with the Downtown Area Plan and Transit Center District Plan.

[757] Planning Code Section 210.2

The height and bulk district for New Montgomery Street between Market and Mission streets is 150-S.

As noted above, use of ES-27 has been changed by AAU from office to a postsecondary educational institutional use. It is being used as an AAU administrative building, with offices, classrooms, labs/studios, a theater, and a gallery. The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. The change in use of the site from an office to a postsecondary educational institutional use within the C-3-O(SD) District slightly deviates from the predominantly office use that is generally supported by limited service and retail uses on the ground-floor. The C-3-O and C-3-O(SD) Zoning Districts' uses are intended to facilitate face-to-face business contacts to be made conveniently by travel on foot. This change in use of ES-27 limits land and space intended for office and business use, along with the opportunity for ground-floor supporting services (i.e., restaurants) and retail. However, change in use of one building in the context of the number of buildings in the vicinity would not have a substantial effect on the large real estate and land use characteristics of the C-3-O and C-3-O(SD) Zoning Districts. ES-27 would require a building permit under Planning Code Section 171.

The postsecondary educational institutional use does not change the scale or neighborhood character, as limited exterior alterations to the building have occurred. AAU signage and showcases conform to the standards of other ground-level advertising and displays that are prevalent in the area. Therefore, the ES-27 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-27 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-27 is 908 occupants (741 students and 167 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. The change in use may indirectly result in new residents of San Francisco due to student and employment growth at the site. Conservatively presuming that ES-27 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in daytime population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[758]

The change in use at ES-27 from an office use to a postsecondary educational institution would have minimally changed the daytime population because the building, as an office, likely had a comparable capacity. AAU is essentially replacing the office building population; therefore, the

[758] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

daytime population of the site would be fundamentally unchanged. Therefore, no substantial effect on population has occurred from the change in use at ES-27.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-27 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from office to a postsecondary educational institution at ES-27 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-27 did not result in the displacement of housing because this site was previously used as office.

Aesthetics

ES-27 is located in the Financial District neighborhood and within the New Montgomery-Mission-Second Street Conversation District. The five-story building, which was built in 1907, was enlarged to its current form in 1920 and remodeled in 1960. ES-27 is a Category I building in the New Montgomery-Mission-Second Street Conversation District. The building has a symmetrical square design set flush with the sidewalk. ES-27 has a flat roof terminating with a stepped cornice. The top floor windows have arched openings, a horizontal axis diving the middle story windows, and large storefront windows on the ground floor that display AAU advertising, artwork, and displays. There are no street trees along New Montgomery Street, Mission Street, Jessie Street, or Second Street near ES-27.

Many of the buildings in the New Montgomery-Mission-Second Street Conversation District, including ES-27, were built between 1906 and 1930. More than two-thirds of the buildings are three- to seven-story brick or concrete commercial loft buildings constructed during the five years after the 1906 Earthquake and Fire. Most buildings have either square or rectangular massing. The area is entirely built out and urban in character with no public parkland or open space. The historic district is highly cohesive in regard to scale, building typology, materials, architectural style, and relationship to the street.[759]

ES-27 is viewable from Market Street, which is designated as a street that defines city form and is important for significant building viewing.[760] Due to the relatively flat topography and large scale of the buildings, view corridors are limited to streets and intersections. ES-27 is bordered by New Montgomery Street to the west, Mission Street to the south, Jessie Street to the north, and Second Street to the east. Due to the urban character of the neighborhood, bordering roadways with the exception of Jessie Street contain a high volume of traffic, especially during weekday business hours. Jessie Street is an alley that connects New Montgomery and Second streets, and is used by pedestrians and some cars. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

[759] Planning Code Appendix F to Article 11.
[760] San Francisco Planning Department, *San Francisco General Plan*, Urban Design Element, Map 11, Street Areas Important to Urban Design and Views.

The surrounding area contains mainly high- and mid-rise buildings containing office, residential, cultural, and hotel functions. There is an architectural mix of older structures side-by-side with modern buildings. In general, buildings extend to the sidewalk and vary greatly in size from the two-story building on the northwestern corner of Mission and Second streets, to the 15-story building at 90 New Montgomery Street, across from ES-27. Many of the buildings include ground-floor retail spaces and office uses on the upper floors. The intensity of development generally increases to the north and east of the site.

The change in use at ES-27 has caused some changes to the building and neighborhood character. Three AAU illuminated blade signs are prominent exterior features that can be seen along the view corridors of New Montgomery Street, Mission Street, and Second Street. Because the signs extend from the building, they can be seen from several blocks away along the view corridors. In addition, awnings with the AAU logo are located above the ground-floor windows. Nevertheless, AAU signage on ES-27 is comparable to the visual character of the area. Advertising located on signs, awnings, bus stops, and pole banners is prevalent within the neighborhood. No other exterior changes are attributable to the AAU use. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-27.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

Exhibiting a Renaissance Revival–influenced style, ES-27 is a five-story commercial building in the Article 11-designated New Montgomery-Mission-Second Street Conservation District. Spanning eight bays on New Montgomery Street and six on Mission Street, the building displays a symmetrical design composition, with continuous bands of windows, separated by recessed spandrel panels accented with applied ornament. The building is nearly square in plan and set flush to the sidewalk, on a flat lot. The primary elevation faces New Montgomery Street, with secondary elevations fronting Mission Street and Jesse Street. The building is capped with a flat roof, terminating in a stepped cornice.

On the primary (New Montgomery Street) elevation, the first floor features a deeply recessed main entry, trimmed with marble walls and flooring and unadorned, paired glass doors and transom windows, set flush with the floor. This entrance represents a 1960 remodel carried out by renowned San Francisco architect Gardner A. Dailey for Allied Properties. In a career spanning over 40 years, from the 1920s until his death in 1967, Dailey designed and completed numerous celebrated and award-winning commissions throughout the Bay Area.

Flanking the main entry are large storefront windows, sheltered beneath slim projecting awnings. Dividing the second and third floors is a prominent belt course, which appears to mark the original 1913 construction of the first two stories, with the upper three stories added in 1920. Encircling the building are wood double-hung windows, slightly recessed in the wall plane. The fourth story windows are articulated with segmental arched openings and keystone accents. The secondary elevations are virtually identical to the primary elevation, which the exception of in-filled openings and a roll-up door installed on the eastern portion of the lot, on Jesse Street.

The entrance leads to a rectangular lobby with a marble floor. Three elevator bays stand opposite the main entry; the elevators appear to date to the Dailey remodel in 1960. The lobby appears to retain features from both the original interior as well as subsequent remodeling, with updated features combined with remnants of the original lobby, including a chandelier, intact crown molding, and Classic Revival-inspired decorative features (for representative photographs refer to Photographs 115–117).

Photograph 115. 77 New Montgomery Street

Photograph 116. 77 New Montgomery Street, detail, window and spandrel ornament.

Photograph 117. Interior lobby of subject property.

Site History

The 77 New Montgomery Street building was constructed in 1913 as a two-story commercial building designed to be expanded in phases up to eight stories.[761] This commission replaced the Crossley Building, which originally occupied the site but was destroyed in the 1906 Earthquake and Fire. In the initial phase of construction, the first two stories were designed by San Francisco architect Sylvain Schnaittacher (1874–1926), for an estimated cost of $150,000. The property was commissioned by Central Realty Company and its principal stockholder, A. Aronson, “one of the ablest realty operators in the city.”[762] The phased building plan was due to the size and divisions of the parcel, which consisted of three separate lots. As building plans were announced in May 1913, the *San Francisco Chronicle* thus described 77 New Montgomery:

> “Among the new building announcements made this week the most interesting is that of a Class A structure at the northeast corner of Mission and New Montgomery streets [sic]. …The site of the new building was recently acquired by Aronson. Aronson in an exchange of properties from Mrs. Oelrichs. The building is intended to be eventually the first two stories and basement of a big office structure of eight stories. ...The plans have been so laid out that in the event of a purchaser acquiring either one of the three buildings he could add six stories and be independent of the other buildings.”[763]

Although the architect listed for the 1920 expansion of the property is Mel Schwartz, it appears that the design had already been determined in Schnaittacher’s 1913 plans. The 1920 addition brought three more stories, bringing the building to its current five-story massing (rather than the original planned eight stories).

Ownership and tenancy in the building appears to have changed hands on several occasions through the years. Owners/tenants included Associated Oil Company, which occupied the building as early as the 1920s through the mid-1950s, Allied Properties as of the late 1950s, which commissioned the Gardner Dailey remodel of the entrance, and Crocker National Bank/Crocker Properties, which occupied at least a portion of the property from as early as 1960 through the late 1980s. As of 1968, Pacific Telephone and Telegraph occupied office space as a tenant.

California Register of Historical Resources Evaluation

In addition to being a contributing property in the New Montgomery-Mission-Second Street Conservation District, 77 New Montgomery (ES-27) Street appears California Register of Historical Resources (CRHR) eligible both individually and as part of a historic district under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period. The property also qualifies individually and as a contributor to a historic district under CRHR Criterion 3, as an excellent example of Renaissance Revival-influenced commercial architecture in downtown San Francisco. The

[761] San Francisco Chronicle, City Realty Market Is Stirred by Important Transactions, May 17, 1913. The San Francisco Property Information Map shows a date of construction of 1907; available primary sources indicate the year 1913 for the building’s first phase of construction.
[762] San Francisco Chronicle, May 1913.
[763] San Francisco Chronicle, May 1913.

corresponding California Historic Resources Code is 3CB. The evaluation also considered the 1960 entrance/lobby remodel by master architect Gardner Dailey. Because the remodel represents only a small portion of the building, it does not qualify for landmark listing (but is of note in the property's history).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[764] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). The subject property retains integrity and remains CRHR-eligible both individually and as a contributor to the historic district. The period of significance is 1913–1933, with the end date corresponding with end of the period of significance for New Montgomery-Mission-Second Street Conservation District.

<u>Character-Defining Features Summary</u>

Exterior

- Symmetrical design composition
- Building set flush to sidewalk
- Rectilinear building plan
- Ornamental detailing, accenting bays, spandrels, and windows
- Continuous, parallel bands of double-hung windows, slightly recessed in wall plane
- Five-story square plan building
- Flat roof terminating in projecting ornamental cornice line
- Top floor windows articulated with segmental arched openings and keystone accents
- Belt course defining the horizontal axis between second and third stories
- Large storefront windows

Interior

- Entrance configuration, deeply recessed entrance, leading to open lobby and three elevator bays
- Marble floor and walls in lobby
- Remnants of original ornamental program and detailing (crown molding accenting the ceiling, molded panels, chandelier)

<u>Secretary of the Interior's Standards Analysis</u>

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for*

[764] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

Rehabilitation. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awnings: The project complies with Rehabilitation Standard No. 2. The storefront openings (in size, configuration, and profile) that span the ground-level are considered character-defining. As of 1992, the building had barrel-vault awnings that were significantly larger and blocked views of these character-defining features to a greater degree than the extant awnings. The extant awnings, although they also span all primary elevations of the building, their profile/projection widths are thin and relatively unobtrusive. Therefore, the shape, size, and character of the original storefront windows are easily discernible. With the stucco-cladding and in-filled transoms constituting noncontributing features, the awnings do not block or obscure character-defining features.

Signage: The project does not comply with Rehabilitation Standard No. 2. The building features a symmetrical, rhythmic design consisting of parallel bands of window bays that span each story of the building. This feature is character-defining. The projecting signs, as currently installed on three prominent corners of the building, in a position that spans the first and second stories, present a visual interruption of this symmetrical, rhythmic design, segmenting what was intended to be a continuous, unified façade design.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awnings: The project does not comply with Rehabilitation Standard No. 3. Although awnings are often found on similar commercial properties from this era, historic photographs indicate that such a feature was not present on the building during the period of significance. The awning introduces an element that is not representative of the property's historical use and appearance.

Signage: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have blade signs during the period of significance. The signs introduce elements that are not representative of the property's historical use and appearance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awnings: The project complies with Rehabilitation Standard No. 5. Although the ground-level storefront openings are character defining, the wall materials to which the awnings are fastened consist of noncontributing stucco sheathing. This stucco was used to infill the transom windows in the 1980s. The project affects materials that do not characterize or convey the historic significance of the property.

Signage: The project does not comply with Rehabilitation Standard No. 5. For each of the three signs, the project involved the installation of two steel, L-shaped mounting brackets, which are bolted to the masonry of the exterior walls. Each L-shaped mounting bracket is fastened to the masonry walls with at least eight bolts. The recommended approach in the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) for installing signage is to use mortar joints or the jamb of a noncontributing storefront component (rather than character-defining masonry). The project is likely to have resulted in damage to character-defining wall materials as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and the property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Awnings: The project complies with Rehabilitation Standard No. 9. The awnings are located within the existing storefronts and installed into noncontributing wall materials (in stucco sheathing applied in the early 1980s). Thin in profile and unobtrusive in appearance, the awnings are compatible in size, scale, and proportion, and do not obscure character-defining storefront openings.

Signage: The project does not comply with Rehabilitation Standard No. 9. The building's symmetrical, rhythmic design is character-defining. The projecting signs interrupt the two-part vertical design as well as the horizontal banding of fenestration across all visible elevations of the building. In addition, the signs interrupt the bold, unadorned corner piers of the building. In this way, the signs add a highly visible element that is not compatible with the historic character, materials, and features of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awnings: The project complies with Rehabilitation Standard No. 10. If the awnings were removed, the essential form and integrity of the historic property would remain unimpaired.

Signage: The project complies with Rehabilitation Standard No. 10. If the signs were removed, the essential form and integrity of the historic property would remain unimpaired.

Security Cameras: The project complies with Rehabilitation Standard No. 10. If the security cameras were removed, the essential form and integrity of the historic property would remain unimpaired.

Article 11 Analysis

The 77 New Montgomery Street (ES-27) building is a Category I ("Significant") contributing property within the New Montgomery-Mission-Second Street Conservation District. Article 11, Appendix F, Section 6 of the Planning Code describes the overall character and scale of the New Montgomery-Mission-Second Street Conservation District. Throughout the district, contributors are divided into bays that establish a cohesive, rhythmic character along the street line. The subject property is consistent with this overall character, as reflected in the building's symmetrical, rhythmic design composition, repeating window bays that span the building on each floor. These character-defining design elements are the focus of the following Article 11 compliance analysis.

Prior to AAU's occupation of the property, the ground-level storefronts facing New Montgomery and Mission streets were altered in 1960 and 1982, according to building permits on file with the San Francisco Department of Building Inspection. Alterations resulted in the infill of transom windows, application of stucco over the windows, and the extensive reconfiguration of the primary entrance on New Montgomery Street.

The AAU awnings currently spanning the ground floor of the property appear compliant with Article 11 guidelines. Although partially altered, the storefront openings continue to be character-defining features of the building. The AAU awnings are thin in profile and located within the frame of each storefront opening. Given this, they do not obscure the spacing of bays and the elements that characterize and define those bays. The piers that separate the bays are still clearly visible, and the transoms located above the awnings, while in-filled, are still discernible.

Per the applicable guidelines for projecting signs within Conservation Districts (including in Article 11 and Article 6), the scale and placement of signs shall be appropriate to the elements of the building.[765] Installed on prominent, highly visible corners, the three projecting signs interrupt the symmetrical, rhythmic design of the building, segmenting what was intended to be a continuous, unified composition. The three signs are considered to be in noncompliance with applicable guidelines for projecting signs in Article 11 Conservation Districts.

In addition, the signs appear to be internally illuminated signs with plastic lenses, supplied power via conduit that is exposed and attached to the face of the building. Under Article 11 guidelines, internally illuminated signs are not permitted (the guidelines call for either indirectly or externally illuminated lights), and conduit must be concealed rather than attached to and left exposed on the face of the building, the sign structure, or the sign itself.[766]

In terms of location, the signs were installed above the storefront transom openings, extending above the lintel of the second-floor windows. According to Article 11 guidelines, projecting signs may not be located above the window sill of the first residential floor.[767] The location of the signs appears to be in noncompliance with Article 11 guidelines.

Moreover, the installation of signs on properties in Conservation Districts is to be undertaken in such a way that "avoids damaging or obscuring any of the character-defining features" of the property and that "allows for their removal without adversely impacting the exterior" of the building.[768] The L-shaped mounting brackets and bolts installed in the exterior masonry walls appear to be in noncompliance with these requirements.

Conclusion

The following Condition of Approval is recommended to facilitate bringing the building at 77 New Montgomery Street (ES-27) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-27: HR-1, Signage. The projecting signs do not appear to comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. To facilitate compliance, the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) shall be removed, and the original surface patched and repaired where necessary and refinished to match existing in materials and appearance.

To facilitate compliance with Article 11 guidelines, the one remaining sign shall be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting.

[765] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," November 2012, 14.
[766] *DRAFT Sign Controls, Planning Code Article 6*, "Requirements for Signs within Article 11 Conservation Districts," pp. 11-13.
[767] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," p. 14.
[768] *DRAFT Sign Controls, Planning Code Article 6*, "Requirements for Signs within Article 11 Conservation Districts," pp. 11-13.

During site inspections, exposed conduit was noted on the exterior walls left of the entrance. AAU shall conceal any exposed conduit from view, per the Article 11 guidelines for properties in adopted Conservation Districts.

Archaeology and Paleontology

Building alterations at ES-27 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

The 77 New Montgomery Street site is located on the east side of New Montgomery Street, south of Jessie Street (alley) and north of Mission Street in the Yerba Buena/Financial District neighborhood. The five-story building, built in 1907 and enlarged in 1920, was at one time the Crocker Bank Offices. AAU occupied the building beginning in 1992, and it includes approximately 147,509 gross square feet of AAU postsecondary educational institutional use, comprised of administrative offices, classrooms, labs/studios, a theater, and a ground-floor galleries with approximately 908 occupants (275 students and 167 faculty/staff members) at ES-27. Since the relocation of main administrative functions to 150 Hayes Street in 2013, ES-27 does no longer serve as the main administrative office for AAU and the number of office workers is substantially lower than analyzed. The trip generation for ES-27 was estimated using the trip generation rate for an academic/admin use (4.56 PM peak hour trips per 1,000 square feet), which is approximately seven percent higher than the trip generation rate for an an academic/admin-office building (4.24 PM peak hour trips per 1,000 square feet). Therefore, the analysis presented here in presents more conservative trip estimation.

No vehicle parking is provided on site, but ES-27 serves as a centralized receiving area for mail and commercial deliveries. There are two off-street loading spaces in the loading dock along Jessie Street (alley) between Second Street and New Montgomery Street. There are three pedestrian entries to the building, one main entry along New Montgomery Street and two secondary entries along Jessie Street for fire egress. There is one bicycle rack with a total of eight Class II bicycle parking spaces in the basement of the building. Additionally, there are four Class II public bicycle racks near the entrance of the building on New Montgomery Street. Two AAU shuttle bus routes (G and Hayes Express) use the 44-foot-long white passenger loading zone on the south side of Jessie Street between New Montgomery and Second streets for passenger loading.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at ES-27 generates approximately 673 person trips (258 inbound trips and 415 outbound trips) and 65 vehicle trips (23 inbound trips and 42 outbound trips) during the weekday PM peak hour.

Traffic

There are two AAU sites located along New Montgomery Street in the Yerba Buena/Financial District neighborhood: 77 New Montgomery Street (ES-27), located on the east side of Montgomery Street between Jessie and Mission Streets, and 180 New Montgomery Street (ES-28), located on the west side of New Montgomery Street between Natoma and Howard streets. In the vicinity of these two AAU sites, New Montgomery Street has a mix of office, hotel, retail and institutional uses. Traffic volumes are heavy along New Montgomery Street during the PM peak period as it carries traffic to the Bay Bridge. ES-27 is one of the most heavily used AAU sites. Pedestrian volumes along the east side sidewalks along New Montgomery Street are heavy, partly because it connects buildings in the SoMa area with the Market Street transit systems. AAU students use this and the adjacent Jessie Street sidewalks for circulation and access, as well as for loitering and socializing. Access to the off-street loading dock is located on the south side of Jessie Street via a roll-up door. SFMTA operates three Muni bus routes (14-Mission, 14X-Mission Express, and 14R-Mission Rapid) along Mission Street. Previously, four AAU shuttle routes stopped at the 44-foot-long white passenger loading zone on the south side of Jessie Street (west of the loading dock area) in 2010; due to restructuring of shuttle routes, two AAU shuttle bus routes (G and Hayes Express) currently stop at this zone.

The existing roadway systems in the vicinity of the AAU site are described below, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and the *Better Streets Plan*.[769,770] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[771]

New Montgomery Street is a one-way southbound Downtown commercial street between Market Street and Howard Street. New Montgomery Street has two southbound lanes and metered parking on both sides of the street. The eastside parking lane is a PM peak period (3 p.m. to 7 p.m.) tow-away lane, converting to a vehicle travel lane during the PM peak period. Traffic volumes along New Montgomery Street are moderate all day, except during the PM peak period, during which vehicle queues extend to Market Street. Occasional conflicts between pedestrians and vehicles were observed along New Montgomery Street at Jessie Street with vehicles making a left-turn onto Jessie Street.

Mission Street is an east-west Downtown commercial throughway between Wellington Avenue and The Embarcadero. In the vicinity of the AAU site, Mission Street has two eastbound travel lanes and one travel lane and one transit-only lane in the westbound direction. There are metered parking spaces on both sides of the street. The *San Francisco General Plan* classifies Mission Street as a Transit Conflict Street, a Transit Preferential Street (Transit Oriented Street), and a Neighborhood Pedestrian Street (Neighborhood Commercial Street). Mission Street is designated as a High Injury Corridor in the City’s Vision Zero network.

Jessie Street is an east-west alleyway that runs discontinuously from Third Street to First Street. In the vicinity of the AAU site, Jessie Street has one eastbound travel lane and metered parking on both sides of the street. The parking on the north side of the street is exclusively for motorcycles.

The postsecondary educational institutional use at ES-27 adds 65 additional vehicle trips to adjacent streets during the PM peak hour (23 inbound and 42 outbound). No off-street vehicle parking is provided at ES-27. Therefore, AAU-related vehicle trips likely park on-street (where available) and

[769] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[770] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[771] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

in off-street parking garages (such as SF MOMA Garage at 147 Minna Street). Based on the level and likely distribution of the additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-27. The level of PM peak hour traffic, even on streets or at intersections that operate poorly, does not represent a substantial contribution to these operating conditions. Shuttle and loading circulation is further discussed below.

Transit

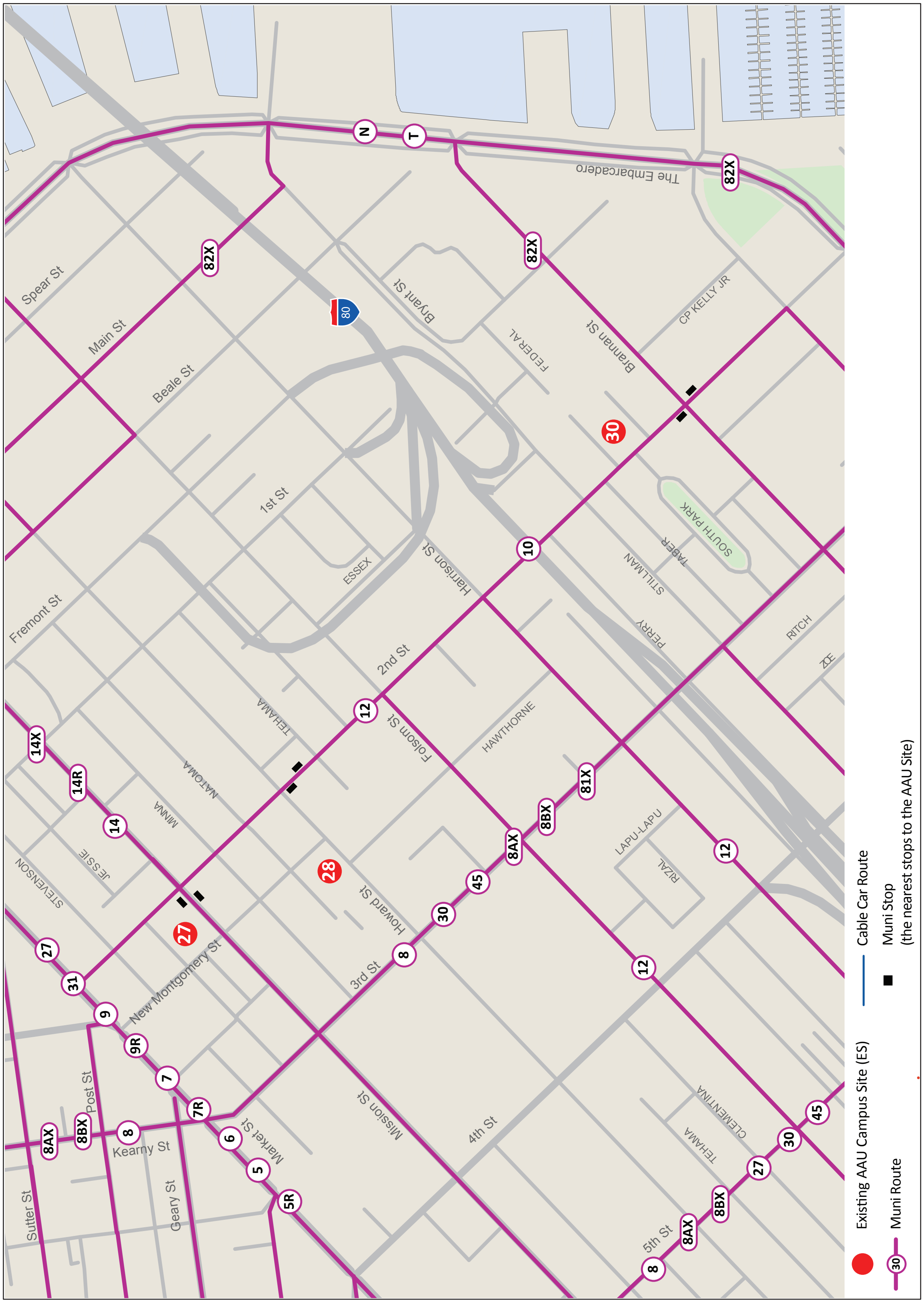
The AAU postsecondary educational institutional use at ES-27 generates approximately 295 transit trips during the PM peak hour, 106 trips in the inbound direction and 189 trips in the outbound direction. ES-27 is in close proximity (approximately 200 feet south) from the Market Street transit spine, which includes four regional rail transit lines operated by Bay Area Rapid Transit (BART) and six light rail lines (J-Church, K-Ingleside, T-Third, L-Taraval, M-Ocean View, and N-Judah) and seven bus lines (2-Clement, 5-Fulton, 6-Parnassus, 21-Hayes, 31-Balboa, 38-Geary, 38R-Geary Rapid) operated by Muni.

In the immediate vicinity of ES-27, two Muni bus routes (10-Townsend and 12-Folsom/Pacific) travel along Second Street, and three routes (14-Mission, 14R-Mission Rapid, and 14X-Mission Express) travel along Mission Street. The 10-Townsend and 12-Folsom/Pacific provide further connections to Muni rail service on Market Street and to regional transit service at the Temporary Transbay Terminal. No Muni routes travel on New Montgomery Street. The nearest bus stops to the site are on Mission Street between New Montgomery and Second streets (for the 14-Mission, 14X-Mission Express, and 14R-Mission Rapid lines) and on Second Street between Jessie and Mission streets (for the 12-Folsom/Pacific line). The stop on Mission Street has a shelter and signage with transit information, but the stop at Second Street does not. There are also three Golden Gate Transit bus lines (70, 101, and 101X) and three SamTrans bus lines (292, 391, and KX) that use the bus stop on Mission Street between New Montgomery and Second streets (see Figure 9**,** Muni Transit Network for ES-27, ES-28, and ES-30).

Table 78, 77 New Montgomery Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour, presents the AM, midday, and PM frequencies of the nearby Muni lines operating in the immediate vicinity of ES-27 as well as the passenger load and their capacity utilization at the maximum load point (MLP) during the PM peak hour. While two routes (10-Townsend and 45-Union-Stockton) are near the standard capacity utilization, all seven routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

As part of the SFMTA's Muni Forward, the following changes are proposed to four of the bus routes in the vicinity of ES-27:

- Route 10-Townsend would have increased frequency east of Van Ness Avenue from 20 to six minutes during AM and PM peak period and from 20 to 10 minutes during midday period. It would also have a contraflow transit-only lane on Sansome Street.
- Route 12-Folsom/Pacific would be discontinued.
- Route 14R-Mission Rapid would extend all-day service to the Daly City BART station.
- Route 30-Stockton would increase frequency east of Van Ness Avenue from 4 to 3.5 minutes.



AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 9: MUNI TRANSIT NETWORK FOR ES-27, ES-28, AND ES-30

Table 78. 77 New Montgomery Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	2nd St/ Townsend St	80%
12 – Folsom/ Pacific	24th Street BART Station to Van Ness and Pacific via Pacific, Sansome, and Folsom	20	20	20	108	Harrison St/ 7th St	57%
14 – Mission	Daly City BART to Ferry Plaza via Mission	8	8	7	285	Mission St/ Precita St	40%
14R – Mission Rapid	Daly City BART to Ferry Plaza via Mission	8	8	8	467	Mission St/ 24th St	74%
14X – Mission Express	Daly City BART to Ferry Plaza via Mission	6	N/A	7	318	6th St/ Harrison St	56%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St and 5th St	8	12	12	260	Stockton St/ Sutter St	82%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

The 295 PM peak hour transit trips (106 inbound and 189 outbound) generated by the AAU postsecondary educational institutional use at ES-27 and the 380 transit trips from the 180 New Montgomery Street site (ES-28) are distributed to several Muni routes as well as to regional transit service lines, given their proximity to the Market Street corridor. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, on p. 3-30, this increased transit demand in combination with transit trips from other AAU locations has not substantially contributed to the existing transit service in the area. AAU shuttle service to the site has not substantially conflicted with the operation of transit vehicles because there are no Muni lines operating along New Montgomery or Jessie streets.

Shuttle

While the postsecondary educational institutional use at ES-27 is estimated to generate approximately 109 shuttle riders during the PM peak hour, 50 riders in the inbound direction and 59 riders in the outbound direction, the current level of shuttle demand as observed by CHS on March

2016 is approximately 30 percent lower than the estimated demand. Appendix TR-L includes a summary of trip generation and travel behavior survey conducted at ES-27. Shuttle demand is higher at different times of the day for this site, depending on class scheduling. The site was served by four shuttle bus routes (E, H, I, and M) in 2010. Routes E, H, and I each operated with 15-minute headways throughout the day, and Route M operated with 60-minute headways throughout the day. The shuttle stop was at Jessie Street. The total seating capacity for these four routes was 691 seats in the PM peak hour. Routes E, H, I, and M operated at 63, 30, 78, and 44 percent capacity at the MLP, respectively, in 2010 during the PM peak hour. During the shuttle peak hour, Routes E, H, I, and M operated at 63, 126, 130, and 81 percent capacity, respectively, at the MLP. MLPs occurred at the Cannery on Route E, at 466 Townsend Street and on Route H, at 79 New Montgomery on Route I, and at 860 Sutter Street on Route M. The shuttle stop at Jessie Street was used as a hub transfer stop between routes in 2010, but this function moved to 180 New Montgomery Street (ES-28) as of spring semester of 2015. Therefore, the E, H, and I shuttle routes were altered to stop at the 180 New Montgomery Street site (ES-28) instead. Route M no longer operates along New Montgomery Street. Currently, two shuttle bus routes (G and Hayes Express) stop at ES-27 on Jessie Street, with 30-minute headways for each route and a total seating capacity of 82 in the PM peak hour. Although they do not stop at ES-27, Routes D and H also travel near this AAU site on New Montgomery Street.

Based on the current shuttle capacity, only a portion of the estimated demand (approximately 109 shuttle riders) at ES-27 are expected to use the G and Hayes Express routes. The remaining shuttle riders likely walk approximately 500 feet to 180 New Montgomery Street (ES-27) to access Routes D, E, H, and I. Since it is unknown whether Routes G and Hayes Express can sufficiently serve the expected shuttle trips generated by ES-27 and given the lower shuttle demand as observed by CHS Consulting Group, a Condition of Approval to assess and monitor the shuttle bus capacity for Routes G and Hayes Express, potentially increasing frequency or capacity to meet the measured demand, is recommended below.

In 2010, the four AAU shuttle bus routes used the 44-foot-long white passenger-loading zone on the south side of Jessie Street between New Montgomery and Second streets for passenger loading. As of 2015, two AAU shuttle bus routes (G and Hayes Express) use this white zone.[772] Based on the frequency of service on these routes, one to two shuttles are expected to use the zone at the same time, and therefore the 44-foot length is sufficient to meet the expected demand.

Neither New Montgomery Street nor Jessie Street is part of a designated bicycle route, and no Muni routes operate along New Montgomery or Jessie streets. Therefore, the AAU shuttle service on New Montgomery Street and Jessie Street does not directly conflict with bicycle traffic or Muni vehicles.[773]

Pedestrian

The AAU postsecondary educational institutional use at ES-27 generates approximately 579 pedestrian trips during the PM peak hour: 175 walking, 295 transit, and 109 shuttle trips. The 109 shuttle walking trips are short in length, from the building entrance to the shuttle zone on Jessie

[772] As a general rule, all shuttle buses (Routes G and Hayes Express, and campus tour shuttle buses) use the shuttle zone on Jessie Street. The white passenger loading zone on New Montgomery Street is primarily used by students, staff, and parents and the public for loading/unloading of passengers.
[773] Field observation was made by CHS on Thursday, July 16, 2015 between 1:00 p.m. and 3:00 p.m.

Street. South of the site, Mission Street is designated as a High Injury Corridor in the City's Vision Zero network. Intersections near the site have well-defined crosswalk markings, pavement delineations, and traffic lights. The New Montgomery Street/Mission Street intersection has pedestrian crossing signal heads. Sidewalks along Jessie Street, New Montgomery Street, and Mission Street are approximately 10, 14, and 15 feet wide, respectively. There is a curb cut bordering the site, with a driveway on the south side of Jessie Street. The primary pedestrian access to the site is from New Montgomery Street through the doorway. There are two secondary entries from Jessie Street for fire egress.

Pedestrian volumes along New Montgomery Street are generally heavy, especially during the AM and PM peak hours and at lunchtime. New Montgomery Street is a major pedestrian corridor to Market Street. Pedestrian flows and speeds were observed to be restricted, and crowding was observed at times on the sidewalk and particularly heavy at crosswalk areas. The land uses in the area are a mix of hotels and office uses on the upper levels and retail and restaurant uses on the ground floors. The Sheraton Palace Hotel is located on the west side of New Montgomery Street, across from ES-27. The 579 PM peak hour pedestrian trips at ES-27 and 745 pedestrian trips at nearby 180 New Montgomery Street (ES-28) add pedestrian volumes in the area. Pedestrians were observed to be able to move freely along the adjacent pedestrian facilities, which are 14 feet in width, and the estimated pedestrian trips are accommodated. Therefore, pedestrian traffic has not been substantially blocked by the additional pedestrian trips.

A recommended Condition of Approval to assess/monitor shuttle service is presented below. If shuttle service could meet the demand at ES-27, students would be less likely to gather or wait for any length of time for shuttles near Jessie Street. Additionally, since pedestrian flows on adjacent sidewalks are intermittently heavy, a Condition of Approval to monitor pedestrian volumes at the site, particularly student volumes during the peak periods, is recommended. If pedestrian traffic is observed to be blocked during any of these periods, AAU should implement measures such as having students wait inside for shuttles, reminding students not to block adjacent sidewalks, or providing a gathering area inside the building.

Bicycle

The AAU postsecondary educational institutional use at ES-27 generates 23 bicycle trips during the PM peak hour, 6 trips in the inbound direction and 17 trips in the outbound direction. The closest bicycle routes are Route 50 along Market Street and Route 11 along Second Street with sharrow marking in the pavement. There is one bicycle rack with a total of eight Class II bicycle parking spaces in the basement accessed via the main entrance of the building and through the elevator or stairs.[774] Additionally there are four Class II public bicycle racks (eight spaces) in front of the building on New Montgomery Street. During the school year, the Class II spaces out front were observed to be well utilized. The site's 23 PM peak hour bicycle trips in combination with 30 PM peak hour bicycle trips from nearby 180 New Montgomery Street (ES-28) have not substantially affected the operation or capacity of bicycle facilities in the area.

[774] Bicycle parking data was provided by AAU and verified by Planning Department staff.

This site generates a bicycle parking demand of approximately 34 spaces, which is not met with the existing 16 bicycle parking spaces.[775] A recommended Condition of Approval suggests that AAU provide 18 additional Class I bicycle parking spaces, or coordinate with SFMTA to provide 18 Class II bicycle parking spaces along New Montgomery, Mission, and Jessie streets, to meet the estimated demand. As stated, the public bicycle racks along New Montgomery Street were observed to be highly utilized during the school year by AAU students and/or staff. Additionally, given the location of the existing bicycle parking locations, a recommended Condition of Approval is suggested to relocate the existing Class II bicycle parking spaces to a more convenient location on the ground floor, and to add signage to help students locate the bicycle parking. Recommended Conditions of Approval are presented below. No bicycle parking is required under the Planning Code for this site.

Loading

The AAU postsecondary educational institutional use at ES-27 generates approximately 15 daily truck trips, which equates to a loading demand of less than one (approximately 0.7) trip(s) in an average hour or 0.9 trip during the peak demand hour. There are approximately 20-foot-long freight loading (yellow) zones on Jessie, New Montgomery, and Mission streets, adjacent to or across from ES-27. ES-27 serves as a centralized receiving area, and most deliveries, except food and small items, are delivered to this location and then distributed to the other AAU buildings. Based on information provided by AAU, there are approximately eight to nine daily deliveries to this location.[776] There are two off-street loading spaces in the loading dock area along Jessie Street, between Second Street and New Montgomery Street. The loading dock accommodates up to two courier vans, and larger trucks typically park at the entrance of the loading dock.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. The existing yellow freight loading zones on Jessie, New Montgomery, and Mission streets were usually occupied during the observation period. No double parking was observed. The loading dock was closed and not in use at the time of observation.[777]

Garbage collection at this site occurs on the south side of Jessie Street, next to the entrance of the site. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection along New Montgomery Street occurs six times a week in the late night hours.

---

775 Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

776 Approximately three mail deliveries are made to the 77 New Montgomery Street building on a typical day, including USPS delivery and pickups, and daily deliveries from FedEx and DHL (two to five times per week). Once the mail and packages from the mail carriers are sorted, they are placed on mailroom runs to the other buildings. Deliveries to the other buildings are made by AAU vehicles (Ford Transit Connect van) twice a day. In addition, all supplies, such as paper, ink, computers, and other specially ordered items, are delivered to 77 New Montgomery Street, averaging four to five deliveries per day. A third-party vendor (Admail) in Sacramento makes deliveries to 77 New Montgomery Street, usually at the beginning of each semester.

777 Field observation was made by CHS on Thursday, July 16, 2015 between 1:00 p.m. and 3:00 p.m.

Parking

The AAU postsecondary educational institutional use at ES-27 generates a parking demand of 16 parking spaces (two spaces by faculty/staff and 14 spaces by commuter students). The site does not provide any off-street parking spaces, so parking demand must be met on-street or at off-site facilities, such as the Moscone Center garage at 255 Third Street or the SFMOMA garage at 147 Minna Street. For students, parking rates in the vicinity are generally high for short-term parking (typically a student would need to park in a parking garage for a minimum of 2.5 hours for a class and the cost could be $20 or higher). Additionally, most commuter students attend more than one class on days they commute to campus and thus likely park their vehicle only once, near (or in close proximity to) the AAU building (or related facility) where they will attend their first or last class of the day, or at another location convenient to the shuttle lines. Off-street facilities such as the Moscone Center garage at 255 Third Street or the SFMOMA garage at 147 Minna Street are available for faculty or staff at ES-27.

An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

Curb spaces bordering the site generally consist of a no parking zone along New Montgomery Street and time-limited (2-hour) metered parking along Jessie and Mission streets. Table 79, 77 New Montgomery Street – On-Street Parking Supply and Occupancy (Midday Peak) summarizes on-street parking supply and weekday midday occupancy for streets bordering 77 New Montgomery Street. There are a total of six on-street parking spaces surrounding the site. During the survey period, parking occupancy was moderate, averaging about 67 percent between 1:00 p.m. and 3:00 p.m.

Table 79. 77 New Montgomery Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
New Montgomery St	Jessie St	Mission St	East	0	0	0%
			West	0	0	0%
Jessie St	New Montgomery St	2nd St	South	3	2	67%
Mission St	New Montgomery St	2nd St	North	3	2	67%
Total				6	4	67%

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

Given the limited amount of on-street parking, the location of off-street parking within the study area, generally bounded by Market Street, Fourth Street, Folsom Street, and First Street, was examined. Table 80, 77 New Montgomery Street – Off-Street Parking Supply lists 29 public off-street parking facilities with a total of 5,193 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 80. 77 New Montgomery Street – Off-Street Parking Supply

Address	Type	Capacity
101 2nd St	Garage	70
55 2nd St	Garage	N/A
555 Market St	Garage	80
75 Hawthorne St	N/A	125
525 Market St	Garage	65
71 Stevenson St	Garage	70
147 Minna St	Garage	410
223 Stevenson St	Garage	350
500 Howard St	Lot	110
55 Hawthorne St	Garage	280
125 Stevenson St	Garage	180
75 Natoma St	Lot	32
204 2nd St	Lot	N/A
560 Mission St	Garage	210
201 2nd St	Lot	21
222 2nd St	Lot	120
41 Tehama St	Lot	120
85 2nd St	Garage	60
255 3rd St	Garage	752
1 Bush St	Garage	260
521 Mission St	Garage	180
45 3rd St	Garage	798
515 Howard St	Lot	150
524 Howard St	Lot	70
680 Mission St	Garage	240
150 1st St	Garage	180
535 Mission St	Garage	100
546 Howard St	Lot	60
81 Minna St	Lot	100
Total		**5,193**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Some of the 16 parking space demand related to the postsecondary educational institutional use at ES-27 is met by on- or off-street parking facilities. However, these spaces are limited in amount and the AAU use at this building could have potentially added to the overall parking demand in the area. Transportation Demand Management strategies are part of a recommended Condition of Approval for all AAU sites (see p. 3-28 and Appendix TDM at the end of this Memorandum) to encourage AAU to reduce staff and faculty vehicle trips and parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately 0.5 mile west of the site. From the station, vehicles are able to access the AAU site via Third, Jessie, and New Montgomery streets and would be able to park along New Montgomery Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-27 include a potential shuttle deficiency, excess white zone on New Montgomery Street, pedestrian volume concern, and a limited amount and location of bicycle parking,. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-27: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for its shuttle routes, specifically Routes G and Hayes Express, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Recommended Condition of Approval, ES-27: TR-2, White Passenger Zone on New Montgomery Street. A 44-foot-long white passenger loading zone is located adjacent to the site on New Montgomery Street. Since this white zone is not used for AAU shuttle operations, AAU shall, with the approval of SFMTA, return this area to on-street off-peak parking or commercial loading.

Recommended Condition of Approval, ES-27: TR-3, Monitor Pedestrian Traffic. Since pedestrian flows on adjacent sidewalks of the 77 New Montgomery Street site are intermittently heavy, AAU shall monitor pedestrian volumes at the site, particularly student volumes during the peak periods. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles, reminding students not to block adjacent sidewalks, providing a gathering area inside the building, or other measures to reduce this activity, taking into account possible operational and safety considerations.

Recommended Condition of Approval, ES-27: TR-4, Bicycle Parking Location. AAU shall relocate the Class I bicycle parking to a more convenient location on the ground floor, and add signage to help students locate the bicycle parking. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Recommended Condition of Approval, ES-27: TR-5, Bicycle Parking Spaces. AAU shall provide an additional 18 Class I bicycle parking spaces (for a total of 34 Class I spaces) to meet the parking demand, or in coordination with SFMTA add 18 Class II bicycle parking spaces along New Montgomery Street. The public bicycle racks along New Montgomery Street were observed to be highly utilized during the school year by AAU students and/or staff. Bicycle parking shall be consistent with San Francisco Planning Department guidance..

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 77 New Montgomery Street site (ES-27) is located on the east side of New Montgomery Street, south of Jessie Street and north of Mission Street in the Yerba Buena neighborhood. This building was at one time Crocker Bank Offices. Since AAU occupied the building in 1992, it has been an institutional use, composed of administrative and classroom uses. In 2010, AAU shuttle routes E, H, I, and M served ES-27. As of 2015, AAU shuttle routes G and Hayes Express serve ES-27. According to the San Francisco Transportation Noise Map,[778] the existing traffic noise level near ES-27 from vehicular traffic along New Montgomery Street is approximately 74 dBA L_{dn}, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU operations at ES-27 have resulted in the installation of six rooftop condenser units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[779] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment and continue to be compatible. Any noise from shuttle bus operations (backup beepers) would have been and is intermittent and minor. The activities within the ES-27 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as would fixed noise sources at the site; therefore, the change in use at ES-27 would have not exceeded the standards established by the City for effects on sensitive receptors near ES-27.Vehicular traffic noise at ES-27 was calculated using the Federal Highway Administration Highway Noise Prediction Model

[778] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[779] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.

(FHWA-RD-77-108) based on a daily round trip rate of 650 trips per day.[780] According to the San Francisco Transportation Noise Map,[781] the existing traffic noise level near ES-27 from vehicular traffic along New Montgomery Street would have been approximately 75 dBA L_{dn}. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-27 by AAU contribute approximately 51.4 dBA L_{dn} to local traffic noise levels. When the ES-27 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increase in ambient noise levels less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-27 has not substantially increased vehicular traffic noise near the site.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (main administrative building, labs, studios, classrooms, offices, a theater, and gallery) at ES-27, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1992, when AAU occupied the building. Area sources were estimated based on a 147,509-square-foot “Junior College” land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of 650 round trips per day. There are no on-site generators or boilers at ES-27. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-27. Table 81, 77 New Montgomery Street (ES-27) Operational Emissions, presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (Nox), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-27, which are all shown to be below BAAQMD’s daily and annual significance thresholds.

ES-27 is located in the Air Pollutant Exposure Zone, as explained in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57; however, there are no residential uses at ES-27 and there are no emergency backup generators or boilers located on this site. Therefore, the operation of stationary sources at ES-27 has not increased health risks to nearby sensitive receptors. The AAU change in use has not resulted in the exposure of new sensitive receptors within the Air Pollutant Exposure Zone and has not resulted in any impacts to on-site sensitive receptors.

---

[780] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
[781] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Table 81. 77 New Montgomery Street (ES-27) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	4.10	<0.01	<0.01	<0.01	0.75	<0.01	<0.01	<0.01
Energy	0.12	1.08	0.08	0.08	0.02	0.20	0.01	0.01
Mobile	22.37	27.76	3.52	1.26	4.13	5.32	0.62	0.22
Total Emissions	26.58	28.84	3.60	1.34	4.90	5.51	0.63	0.24
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:

[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

ROG = reactive organic gases; Nox = nitrogen oxides; PM10 and PM2.5 = particulate matter 2.5 micrometers in diameter or 2.5 to 10.0 micrometers in diameter, respectively.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-27 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-27 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings

Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-27: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-27 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-27.

Recreation

As shown on Figure 4, p. 3-63, 77 New Montgomery Street (ES-27) is located within 0.25 mile of one publicly owned space: Yerba Buena Gardens. Yerba Buena Gardens, bounded by Fourth Street, Third Street, Mission Street, and Folsom Street, features gardens, terraces and seating areas, children’s play areas, water features, and other indoor features such as art galleries, cafés, the Metreon, and Moscone Event Center. Other publicly owned parks are within a 0.5-mile distance of ES-27, including Union Square and St. Mary’s Square. In addition, numerous privately owned public open spaces (POPOS) are located downtown within a 0.25-mile walking distance of ES-27, including five which are open during business hours (1 Kearny Street, Citygroup Center at 1 Sansome Street, 101 Second Street, Crocker Galleria at 165 Sutter Street, and 55 Second Street) as well as 13 POPOS available at all times (1 Bush Street, 1 Post Street, 100 First Street, 25 Jessie Street, Trinity Alley at 333 Bush Street, 49 Stevenson Street, 525 Market Street, 536 Mission Street at Golden Gate University, 555 Market Street, 560 Mission Street, 595 Market Street, and 71 Stevenson Street).[782],[783]

As described in Population and Housing on p. 4-506 - 4-507, the capacity of ES-27 is 908 occupants. The change in use from office to postsecondary educational institution at ES-27 does not represent a

[782] San Francisco Planning Department, Privately-Owned Public Open Space and Public Art (POPOS) Map. Available online at: http://www.sf-planning.org/index.aspx?page=3339#map. Accessed on February 20, 2016.

[783] Privately-owned public open spaces in the City consist of publicly accessible spaces in the form of plazas, terraces, atriums, and small parks and landscaped areas (some with few pedestrian amenities) that are provided and maintained by private developers. In San Francisco, POPOS mostly appear in the Downtown office district area.

substantial change in the daytime population of the area. The change in population, if any, is considered a minimal increase compared to the service population for Yerba Buena Gardens and is typical for the existing densely developed downtown. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-27 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[784] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-27. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[785] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation

---

[784] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[785] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-27 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[786] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[787] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-27 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[788] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

The 77 New Montgomery building has a capacity of 908 occupants (741 students and 167 faculty and staff). The change in use from offices to postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change of use at ES-27.

Fire and Emergency Services

ES-27 is located within 700 feet of Fire Station No. 1 (935 Folsom Street) and within 3,000 feet of Fire Station No. 13 (530 Sansome Street). Fire Station No. 1 consists of a single fire engine, truck,

---

[786] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[787] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[788] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

and rescue squad. Fire Station No. 13 consists of a single fire engine and truck.[789] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to in under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to in under 4:48 minutes. In 2011, Fire Station No. 13 responded to 564 non-emergency calls with an average response time of 9:29 minutes, with 90 percent of non-emergency calls responded to in under 17:09 minutes. Fire Station No. 13 responded to 2,550 emergency calls with an average response time of 3:12 minutes, with 90 percent of emergency calls responded to in under 4:25 minutes.[790]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-27 meet the Citywide emergency transport goals.

As described above on p. 4-506 – 4-507, the change in use from office to postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change of use at ES-27.

Libraries

The nearest public library to ES-27 is the Chinatown Branch Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-506 – 4-507, the change in use from office to postsecondary educational institution would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Chinatown Branch and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change of use at ES-27.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

---

[789] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[790] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

The change in use under AAU as a postsecondary educational institution would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). No substantial effect on schools has occurred as a result of the change of use at ES-27.

Biological Resources

ES-27 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-27. ES-27 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-27.

Geology and Soils

ES-27 is underlain by Quaternary dune sands.[791] The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is described as clean, well-sorted, fine- to medium-grained sand. The dune sand is typically highly permeable. Within San Francisco, the dune sand reaches thicknesses of up to 150 feet and is underlain by highly fractured bedrock. At the property and immediate vicinity, atop the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is reported to be approximately 20 feet below ground surface and flows northeast.[792] Because building alterations undertaken by AAU were mostly interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-27 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake origination from the Hayward Fault.[793, 794] ES-27 is located in a liquefaction zone.[795] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-27 is a

[791] Geologica, Inc., Phase I Environmental Site Assessment for 79 New Montgomery Street, San Francisco, CA, March 2003.

[792] Geologica, Inc., Phase I Environmental Site Assessment for 79 New Montgomery Street, San Francisco, CA, March 2003.

[793] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[794] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[795] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

steel-reinforced concrete building. ES-27 is not an unreinforced masonry building and does not have a soft story.[796, 797] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the associated building alterations carried out after the change in use to postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-27 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, painting, and reroofing). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-27 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[798] ES-27 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-27.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-27 did not identify the presence of underground storage tanks or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes.[799] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1907, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the

[796] City and County of San Francisco, UMB – All Report, December 1, 2014.
[797] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.
[798] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[799] Geologica, Inc., Phase I Environmental Site Assessment for 79 New Montgomery Street, March 2003.

property. Suspected ACMs were observed during the site visit for the ESA and were confirmed during a subsequent ACM survey.[800] In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the basement and on the ground floor, although there is no evidence of damage or leaks. No peeling paint was detected.[801] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-27 is an AAU administrative building with classrooms, labs, studios, a theater, and a gallery. Hazardous materials that are used, stored, and disposed of at ES-27 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which does not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-27.

Tenant improvements at ES-27 associated with the conversion of office space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-529 – 4-530. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[802] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-27, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-27. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-27 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

[800] RGA Environmental, Limited Asbestos Report, Academy of Art University, 77 New Montgomery Street, April 12, 2013.
[801] Geologica, Inc., Phase I Environmental Site Assessment for 79 New Montgomery Street, March 2003.
[802] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 77 New Montgomery Street, March 4, 2016.

Therefore, the change in use at ES-27 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-27 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[803] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-27 has had no substantial effects on agriculture or forest resources.

[803] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

This page intentionally left blank.

4.2.19. 180 New Montgomery Street (ES-28)

Property Information

The 180 New Montgomery Street existing site (ES-28) is a 190,066-square-foot, eight-story-tall building constructed in 1920, located at the corner of New Montgomery and Howard streets, in the Financial District neighborhood (Photographs 118–121). Figure 16, ES-28: 180 New Montgomery St – Existing Condition, in Appendix TDM, shows the site and surrounding streets. The site is Lot 022 in Assessor's Block 3722. The capacity at the building is 1,716 occupants (1,430 students, 286 faculty and staff).

Formerly telephone company offices, ES-28 was occupied by Academy of Art University (AAU) in 1995. In 2010, AAU used the building to house its library and for classrooms, labs/studios, offices, and a café; these are the current uses of the building as well. AAU shuttle bus routes (D, E, H, and I) use the existing 103-foot-long shuttle-only passenger loading zone with a "No Parking Shuttle Bus Zone" sign along the frontage of ES-28.

The site is zoned C-3-O(SD) (Downtown Office – Special Development) and is within the New Montgomery-Mission-Second Street Conversation District.[804] Office and institutional uses are principally permitted with some related retail and service uses. The height and bulk district is 150-S. ES-28 is located within the Central South of Market (SoMa), Transit Center District, and Downtown Planning Areas. It is also within the Yerba Buena Community Benefit District.

Tenant Improvements and Renovations

At an unknown date AAU added three electric blade signs, installed a new fire sprinkler system and made life safety upgrades; demolished and added interior partitions and a new door to a suite in 2010; and remodeled the basement without a permit in 2011. AAU painted wall signs without a building permit and subsequently removed the signs in 2013 and 2015 to abate a San Francisco Planning Code (Planning Code) violation.[805] AAU painted an in-filled former storefront panel and added security cameras without building permits. AAU installed one rooftop condenser unit and one cooling tower without building permits.

Required Project Approvals

The 180 New Montgomery Street existing site (ES-28) would require a building permit under Planning Code Section 171 to change the use from office to postsecondary educational institution within a C-3-O(SD) Zoning District. A Major Permit to Alter is required under Planning Code Article 11 to legalize or modify past building alterations performed without benefit of permit.

[804] 2100 IMP, p. 81.

[805] Building Permits obtained for the improvements and renovations at ES-28 are: BPA #200404151434 and #200603207105 (electric sign), #200405184205 (new sprinkler system), #200505162548 (life-safety upgrades), #201101128260 (basement remodel, permit never issued), #2012003319389 and #201003228697 and #201003228697 (wall sign removal), #201008199117 (non-structural interior demolitions), #201008249493 (partitions and door), #201312043359 (legalize wall sign, permit never issued), and #201509247953 (wall sign removal).

Photograph 118. 180 New Montgomery Street (ES-28).

Photograph 119. New Montgomery Street at Natoma Street, facing southwest, toward the San Francisco Museum of Modern Art.

Photograph 120. Mid-block Howard Street, facing southwest.

Photograph 121. Blade sign on ES-28.

Plans and Policies and Land Use

ES-28 is located in the Financial District neighborhood. In the immediate vicinity of ES-28 there are a mix of uses including commercial, institution, hotel, and ground-floor retail/restaurant. ES-27 at 77 New Montgomery Street is located two blocks north of ES-28. The surrounding buildings range from two to 26 stories and are predominantly a mix of office and residential uses above ground-level retail/restaurant uses. The ES-28 building was built in 1920, is eight stories, and fronts the entirety of New Montgomery Street between Natoma and Howard streets.

New Montgomery Street, a one-way, two-lane street, dead-ends at Howard Street, in front of ES-28. Howard Street is a one-way, four-lane street with one left-turn lane and a bicycle lane. Metered parking is permitted on both sides of New Montgomery Street and Howard Street. Nevertheless, surface parking is limited due to loading zones, bus stops, and 15-minute parking signs in the vicinity.

Along with ES-27, ES-28 is located within the New Montgomery-Mission-Second Street Conversation District. Many of the buildings in the New Montgomery-Mission-Second Street Conversation District were built between 1906 and 1930. More than two-thirds of the buildings are three- to seven-story brick or concrete commercial loft buildings constructed during the five years after the 1906 Earthquake and Fire. Most buildings have either square or rectangular massing. Notable buildings in the vicinity include the San Francisco Museum of Modern Art and W San Francisco Hotel, which are located to the west of ES-28, fronting Third Street.

The zoning near ES-28 is C-3-O(SD), (Downtown Office – Special Development). The C-3-O(SD) zoning boundaries are located approximately south of Market Street, east of Annie Street, west of Steuart Street, and north of Folsom Street. The area comprises the southern side of the core central business district, and is similar to and generally indistinguishable from the C-3-O District in terms of uses and character. The area is centered on the Transbay Transit Center. This District permits densities that exceed those in the C-3-O District and contains the tallest height limits in the City, reflecting its unparalleled public transportation access and geographically central position in the downtown."[806] ES-28 is located within the Central SoMa, Transit Center District, and Downtown Planning Areas. The Central SoMa Area Plan has not been approved. The Transit Center District Plan's objective is to build onto the Downtown Area Plan and support the next generation of downtown growth. The proposed Central SoMa Area Plan attempts to support transit-oriented growth, shape the area's urban form, maintain vibrant economic and physical diversity, and support growth with improved streets and open space. The Downtown Area Plan contains objectives and policies to guide decisions affecting the downtown area. The Plan foresees a downtown known for a center of ideas, services, and trade, and as a place for stimulating experiences. The use of ES-27 as a postsecondary educational institution is consistent with the Downtown Area Plan and Transit Center District Plan. Height and bulk districts along both sides of New Montgomery Street between Mission and Howard streets are 150-S. Height and bulk districts along Howard Street between 2nd and 3rd street range from 150-S to 350-S.

ES-28's current use is the main library for AAU and also consists of classrooms, labs/studios, offices, and a café. As noted above, the use of ES-28 has changed by AAU from office to a postsecondary

[806] Planning Code Section 210.2.

educational institutional use. The change in use of the existing structure involved limited exterior alterations, including the installation of AAU signage, described above under Tenant Improvements and Renovations. The change in use of the site from an office to a postsecondary educational institutional use within the C-3-O(SD) Zoning District slightly deviates from the predominantly office use that is generally supported by limited service and retail uses on the ground-floor. The C-3-O and C-3-O(SD) Zoning Districts' uses are intended to facilitate face-to-face business contacts to be made conveniently by travel on foot. The change in use at ES-28 limits land and space intended for office and business use, along with the opportunity for ground-floor supporting services (i.e., restaurants) and retail. However, the change in use of one building in the context of the number of building in the vicinity would not have a substantial effect on the larger real estate and land use characteristics of the C-3-O and C-3-O(SD) Zoning Districts. ES-28 would require a building permit under Planning Code Section 171.

The postsecondary educational institutional use does not change the scale or neighborhood character, as limited exterior alterations to the building have occurred. AAU signage and showcases conform to standards set by other ground-level advertising and displays that are prevalent in the area. Therefore the ES-28 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-28 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-28 is 1,716 occupants (1,430 students and 286 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. The change in use may indirectly result in new residents of San Francisco due to student and employment growth at the site. Occupation by AAU may have resulted in displacement of employees; however, office space was likely found elsewhere. Conservatively presuming that ES-28 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[807]

The change in use at ES-28 from an office use to a postsecondary educational institution would have minimally changed the daytime population because the building, as an office, likely had a comparable capacity. AAU is essentially replacing the office building population; therefore, the daytime population of the site would be fundamentally unchanged. Therefore, no substantial effect on population has occurred from the change in use at ES-28.

[807] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-28 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from office to a postsecondary educational institution at ES-28 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-28 did not result in the displacement of housing because this site was previously used as office.

Aesthetics

ES-28 is located in the Financial District neighborhood and is a Category IV building within the New Montgomery-Mission-Second Street Conversation District. The building is eight stories and was built in 1920. ES-28 is a Renaissance Revival–influenced commercial building. The building has a symmetrical, rhythmic design composition and is flush with the sidewalk. The ground floor is tall with columns and vertical bays. The four street trees located along the Howard Street frontage shade the sidewalk and reduce the visual impact of the building massing. There are no street trees on New Montgomery or Natoma Streets. ES-28 is bordered by New Montgomery Street to the east, Howard Street to the south, and Natoma Street to the north.

Many of the buildings in the Conservation District, including ES-28, were built between 1906 and 1930. More than two-thirds of the buildings are three- to seven-story brick or concrete commercial loft buildings constructed during the five years after the 1906 Earthquake and Fire. Most buildings have either square or rectangular massing. The area is entirely built out and urban in character with no public parkland or open space. The historic district is highly cohesive in regard to scale, building typology, materials, architectural style, and relationship to the street.[808]

Due to the relatively flat topography and large scale of the buildings, view corridors are limited to streets and intersections. New Montgomery Street dead-ends at Howard Street and becomes Hawthorne Street, slightly east of the New Montgomery Street terminus. A loading dock area with dumpsters and heating, ventilation, and air conditioning (HVAC) equipment is adjacent and to the east of the site. Due to the urban character of the neighborhood, bordering roadways with the exception of Natoma Street carry a high volume of traffic, especially during weekday business hours. Natoma Street is an alley that dead-ends at the backside of the San Francisco Museum of Modern Art. The density of development and activity generates a substantial amount of pedestrian and vehicle traffic that adds to the visual character of the area.

The surrounding area contains mainly high- and mid-rise buildings encompassing office, residential, cultural, and hotel functions. There is an architectural mix of older structures side-by-side with modern buildings. In general, buildings extend to the sidewalk and vary greatly in size from the two-story building adjacent and to the east of ES-28, to the 26-story apartment building at 1 Hawthorne Street, to the south of ES-28. Many of the buildings include ground-floor retail spaces and office or residential uses on the upper floors. The intensity of development generally increases to the north and east of the site.

[808] Planning Code Appendix F to Article 11.

The change in use at ES-28 has caused some changes to the building and neighborhood character. Three AAU illuminated blade signs are prominent exterior features that can be seen along the view corridors of New Montgomery Street and Howard Street. Because the signs extend from the building, they can be seen from several blocks away along the view corridors. In addition, in-filled former storefront panels have been painted bright red. Nevertheless, AAU signage and coloring on ES-28 is comparable to the visual character of the area. Advertising located on signs, awnings, bus stops, and pole banners is prevalent within the neighborhood. No other exterior changes are attributable to the AAU use. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-28.

Cultural and Paleontological Resources

Historic Architectural Resources

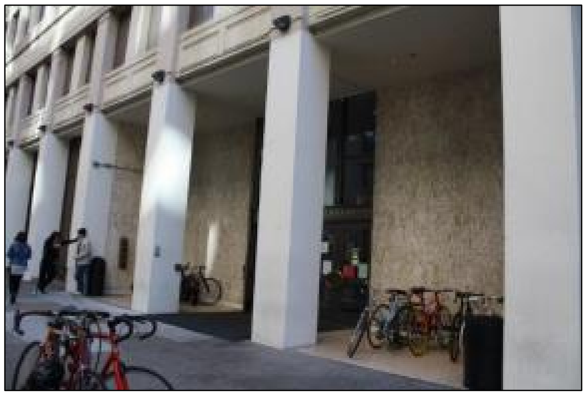
Building Description

Constructed as a mid-rise office building in 1920, 180 New Montgomery (ES-28) is rectangular in plan and set flush to the sidewalk. The primary elevation, which spans 11 bays, faces New Montgomery Street. Secondary elevations front Howard Street (with eight bays), Natoma Street (nine bays), and a small service lot adjacent to Howard Street. The building displays a Renaissance/Classical Revival-influenced style, the building has a symmetrical design composition, with bands of windows defining the horizontal axis, and bold corner piers marking the vertical axis. The building is capped with a flat roof, terminating in a terra cotta cornice, accented with decorative panels.

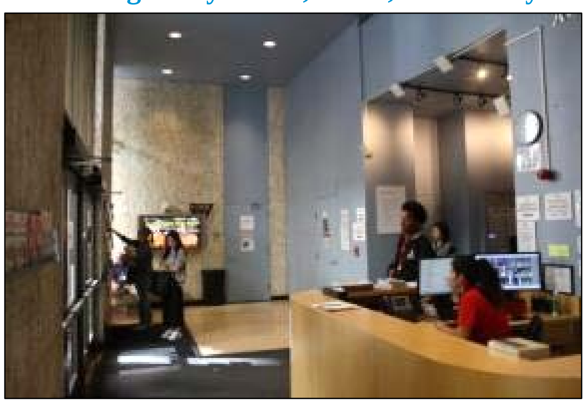
On the primary elevation, the oversized ground-story displays a recessed main entry with terrazzo sheathing on the floor and walls. Former large storefront windows, separated by columns, have been in-filled or the extant glass over-painted. Above the first floor, parallel bands of rectangular fixed windows are separated by ornamental terra cotta spandrel panels. On the secondary elevations, fenestration patterns match those of the primary elevation. Along Howard Street, all windows are fixed. Natoma Street elevation retains its original steel-frame casement windows. The ground-floor storefront windows along Howard and Natoma Street have either been in-filled or over-painted/covered. No fenestration is located on the southwest elevation; however, a stair tower has been added.

The main entry leads to a T-shaped lobby featuring terrazzo flooring and walls. The rectangular lobby sections provide access to an enclosed main stair and a bank of elevators at the rear of the lobby (for representative photographs refer to Photographs 122–124).

Photograph 122. 180 New Montgomery Street.



Photograph 123. 180 New Montgomery Street, detail, main entry of the primary elevation.



Photograph 124. Interior lobby of subject property.

Site History

Designed by architect Kenneth MacDonald, Jr., 180 New Montgomery Street (ES-28) was constructed in 1920 to serve as the San Francisco Furniture Exchange. The building was constructed for an estimated cost of $700,000 and commissioned by the Sharon Estate and Henry J. Moore, head of the city's Furniture Exchange. Upon its construction, the building was heralded in the *San Francisco Chronicle* as offering "a practical solution of what has been one of the city's greatest commercial problems"—namely, that previously "foreign buyers landing at any Pacific Coast port and representatives of Western houses" had been "compelled to make a long trip East to inspect furniture stocks."[809] Once completed, space in the building went quickly, with "practically all the large manufacturers of furniture in the United States represented" in the Furniture Exchange.

By the late 1960s, for at least 20 years, the building served as one of several locations in San Francisco for the offices of Pacific Telephone & Telegraph Company/Pacific Bell.

California Register of Historical Resources Evaluation

In addition to being a contributing property in the New Montgomery-Mission-Second Street Conservation District, 180 New Montgomery Street (ES-28) appears California Register of Historical Resources (CRHR) eligible both individually and as part of a historic district under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period. The property also qualifies individually and as a contributor to a historic district under CRHR Criterion 3, as an intact example of Renaissance Revival-influenced commercial architecture in downtown San Francisco. The corresponding California Historic Resources Code is 3CB.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[810] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). The subject property retains integrity and remains CRHR-eligible both individually and as a contributor to the historic district. The period of significance is 1920–1933, with the end date corresponding with end of the period of significance for New Montgomery-Mission-Second Street Conservation District.

Character-Defining Features Summary

Exterior

- Symmetrical, rhythmic design composition
- Set flush with the sidewalk
- Renaissance Revival-influenced design
- Eight-story building with oversized ground story
- Parallel bands of rectangular window openings, slightly recessed in wall plane, on each floor
- Concrete construction with stucco finish
- Floral molding and friezes
- Ornamental terra cotta panels, belt course, and cornice
- Original steel casement windows on northwest elevation (Natoma Street)

[809] San Francisco Chronicle, City to Have $700,000 Furniture Exchange Building, Block Will Be Covered by Big 8-Story Edifice, April 24, 1920.
[810] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

- Columns and vertical bays on ground-level
- Flat roof terminating in projecting ornamental cornice line
- Top floor windows articulated with segmental arched openings and keystone accents
- Belt course defining the horizontal axis between second and third stories
- Large storefront windows

Interior

- Overall spatial configuration of main lobby and bank of elevators

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Signage: The project does not comply with Rehabilitation Standard No. 2. The building features a symmetrical, rhythmic design consisting of parallel bands of window bays that span each story of the building. This feature is character-defining. The projecting signs, as currently installed on three prominent corners of the building, in a position that spans the first and second stories, present a visual interruption of this symmetrical, rhythmic design, segmenting what was intended to be a continuous, unified façade design.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Signage: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have blade signs during the period of significance. The signs introduce elements that are not representative of the property's historical use and appearance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Signage: The project does not comply with Rehabilitation Standard No. 5. For each of the three signs, the project involved the installation of two steel, L-shaped mounting brackets, which are bolted to the masonry of the exterior walls. Each L-shaped mounting bracket is fastened to the masonry walls with at least eight bolts. The recommended approach in the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) for installing signage is to use mortar joints or the jamb of a noncontributing storefront component (rather than character-defining masonry). The project is likely to have resulted in damage to character-defining wall materials as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and the property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Signage: The building's symmetrical, rhythmic design is character-defining. The projecting signs interrupt the two-part vertical design as well as the horizontal banding of fenestration across all visible elevations of the building. In addition, the signs interrupt the bold, unadorned corner piers of the building. In this way, the signs add a highly visible element that is not compatible with the historic character, materials, and features of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the projecting signs may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. If the security cameras were removed, the essential form and integrity of the historic property would remain unimpaired.

Article 11 Analysis

The 180 New Montgomery Street (ES-28) building is a Category IV ("Contributory") property within the New Montgomery-Mission-Second Street Conservation District. Article 11, Appendix F, Section 6 of the Planning Code describes the overall character and scale of the New Montgomery-Mission-Second Street Conservation District. Throughout the district, contributors are divided into bays that establish a cohesive, rhythmic character along the street line. The subject property is consistent with this overall character, as reflected in the building's symmetrical, rhythmic design composition, repeating window bays that span the building on each floor. These character-defining design elements are the focus of the following Article 11 compliance analysis.

Per the applicable guidelines for projecting signs within Conservation Districts (including in Article 11 and Article 6), the scale and placement of signs shall be appropriate to the elements of the building.[811] Installed on prominent, highly visible corners, the three projecting signs interrupt the symmetrical, rhythmic design of the building, segmenting what was intended to be a continuous, unified composition. The three signs are considered to be in noncompliance with applicable guidelines for projecting signs in Article 11 Conservation Districts.

In addition, the signs appear to be internally illuminated signs with plastic lenses, supplied power via conduit that is exposed and attached to the face of the building. Under Article 11 guidelines, internally illuminated signs are not permitted (the guidelines call for either indirectly or externally illuminated lights), and conduit must be concealed rather than attached to and left exposed on the face of the building, the sign structure, or the sign itself.[812]

In terms of location, the signs were installed above the storefront openings, extending just above the ground story. According to Article 11 guidelines, projecting signs may not be located above the window sill of the first residential floor.[813] The location of the signs appears to be in noncompliance with Article 11 guidelines.

Moreover, the installation of signs on properties in Conservation Districts is to be undertaken in such a way that "avoids damaging or obscuring any of the character-defining features" of the property and that "allows for their removal without adversely impacting the exterior" of the building.[814] The L-shaped mounting brackets and bolts installed in the exterior masonry walls appear to be in noncompliance with these requirements.

[811] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," November 2012, 14.
[812] *DRAFT Sign Controls, Planning Code Article 6*, "Requirements for Signs within Article 11 Conservation Districts," 11-13.
[813] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 14.
[814] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 11-13.

In addition, several infill panels over former storefronts have been painted bright red. Although paint color is generally reversible and not included in SOIS compliance analysis, the bright primary color is in noncompliance with the provisions of Article 11 for the New Montgomery-Mission-Second Street Conservation District. Article 11, Appendix F, Section 7: “Traditional light colors should be used in order to blend in with the character of the district. Dissimilar buildings may be made more compatible by using similar or harmonious colors, and to a lesser extent, by using similar textures.”

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 180 New Montgomery Street (ES-28) into compliance with the Secretary of the Interior’s Standards and applicable Article 11 guidelines:

Recommended Condition of Approval ES-28: HR-1, Signage: The projecting signs do not comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed just above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. In order to facilitate compliance, AAU shall remove the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign), and patch and repair the original surface where necessary and refinish to match existing in materials and appearance.

In order to facilitate compliance with Article 11 guidelines, the one remaining sign would ideally be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting.

Archaeology and Paleontology

Building alterations at ES-28 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-28 is located on the west side of New Montgomery Street, south of Natoma Street and north of Howard Street in the Yerba Buena/Financial District neighborhood. The eight-story San Francisco Furniture Exchange building was built in 1920 and in the past has been occupied by the Pacific Bell offices. This building includes approximately 190,066 gross square feet of AAU postsecondary educational institutional use, comprised of classrooms, labs/studios, a library, offices, and a café. On a typical day there are approximately 1,498 students and 286 faculty and staff members at ES-28.

No vehicle parking is provided on site, but the site has one off-street loading space in the loading dock area along Howard Street, west of New Montgomery Street. There is one main pedestrian entry to the building along New Montgomery Street and entryways to the rear loading area from Howard Street. There are two bicycle racks (16 Class II spaces) located on either side of the main entry. In addition, there are six Class II public bicycle racks along New Montgomery Street. No fixed-route shuttle buses served this site until 2011. As of spring 2015, four shuttle bus routes (D, E, H, and I) use the existing 103-foot-long shuttle-only passenger loading zone on New Montgomery Street.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at ES-28 generates approximately 866 person trips (333 inbound trips and 533 outbound trips) and 83 vehicle trips (30 inbound trips and 53 outbound trips) during the weekday PM peak hour.

Traffic

ES-28 has the largest number of students and faculty/staff; therefore it generates the largest amount of person trips of all AAU buildings. Pedestrian volumes along the west sidewalks along New Montgomery Street were observed to be heavy. AAU students not only use this sidewalk for circulation and access, but also for loitering, socializing, and waiting for AAU shuttle buses. Students often use Natoma Street, west of New Montgomery Street, for loitering and socializing as well. Howard Street, adjacent to the site, includes a bicycle lane, and bicycles were observed locked to racks, parking meters, and signs along New Montgomery and Natoma streets. New Montgomery Street dead-ends at Howard Street, which is a major westbound arterial road in the SoMa area. Traffic volumes along Howard Street are moderate to high all day and very heavy during the PM peak period. Potential conflicts between pedestrians and vehicles exist at all intersections along New Montgomery Street and between pedestrians and bicycles along Howard Street in the vicinity of ES-28. The curb cut in front of the site on New Montgomery Street is a major AAU shuttle bus hub, which is served by four AAU shuttle bus routes (D, E, H, and I).

The existing roadway systems in the vicinity of the AAU site are described below, including roadway designations, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *the Better Streets Plan*.[815, 816] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[817]

New Montgomery Street is a one-way southbound Downtown commercial street between Market Street and Howard Street. New Montgomery Street has two southbound lanes and metered parking on both sides of the street. The eastside parking lane is a PM peak period (3 p.m. to 7 p.m.) tow-away lane, converting to a vehicle travel lane during the PM peak period. Traffic volumes along New Montgomery Street are moderate all day, except during the PM peak period, during which vehicle queues extend to Market Street. Occasional conflicts between pedestrians and vehicles were observed along New Montgomery Street at Jessie Street with vehicles making a left-turn onto Jessie Street.

Mission Street is an east-west Downtown commercial throughway between Wellington Avenue and The Embarcadero. In the vicinity of the AAU site, Mission Street has two eastbound travel lanes and one travel lane and one transit-only lane in the westbound direction. There are metered parking spaces on both sides of the street. The *San Francisco General Plan* classifies Mission Street as a Transit Conflict Street, a Transit Preferential Street (Transit Oriented Street), and a Neighborhood

[815] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[816] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[817] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

Pedestrian Street (Neighborhood Commercial Street). Mission Street is designated as a High Injury Corridor in the City's Vision Zero network.

Natoma Street is an east-west alleyway that runs between Howard Street and Fremont Street. It has one eastbound travel lane and metered parking on the south side of the street.

Howard Street is an east-west Downtown commercial throughway that runs between The Embarcadero and South Van Ness Avenue. In the vicinity of the AAU site, it has four westbound travel lanes, metered parking on both sides of the street, and a westbound bicycle lane. Howard Street is designated as a High Injury Corridor in the City's Vision Zero network.

The postsecondary educational institutional use at ES-28 adds 83 additional vehicle trips to adjacent streets during the PM peak hour (30 inbound and 53 outbound). No off-street parking is provided at the site. Therefore, vehicle trips associated with the postsecondary educational institutional use at ES-28 park on-street or at nearby (or further away) off-street parking facilities (such as Moscone Center garage at 255 Third Street or the SFMOMA garage at 147 Minna Street). Given this distribution and the 34 additional PM peak hour vehicle trips, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-28.

Transit

The AAU postsecondary educational institutional use at ES-28 generates approximately 380 transit trips during the PM peak hour, 137 trips in the inbound direction and 243 trips in the outbound direction. Similar to 77 New Montgomery Street (ES-27), ES-28 is well-served by transit. It is two blocks away from the Market Street transit spine, which includes four regional rail transit lines operated by BART, six Muni light rail lines (J-Church, K-Ingleside, T-Third, L-Taraval, M-Ocean View, and N-Judah), and seven Muni bus lines (2-Clement, 5-Fulton, 6-Parnassus, 21-Hayes, 31-Balboa, 38-Geary, 38R-Geary Rapid). Transit services are very similar to those of 77 New Montgomery Street (ES-27), with the exception that the nearest lines are the 30-Stockton and the 45-Union/Stockton, which run along Third Street. The nearest Muni bus stops to this AAU site are at the New Montgomery Street/Mission Street and Howard Street/2nd Street intersections. The New Montgomery Street/Mission Street stop has a shelter with transit information, but the Howard Street/Second Street stop does not (see Figure 9, p. 4-519). The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 82.

The 380 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-28 and the 295 transit trips from the 77 New Montgomery Street (ES-27) site are distributed to several Muni routes as well as to regional transit service lines, given their proximity to the Market Street corridor. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, on p. 3-30, the increased transit demand, in combination with transit trips from other AAU locations, has not made a substantial contribution to the existing transit service in the area. AAU shuttle service to the site does not substantially conflict with the operation of transit vehicles because there are no Muni lines operating along New Montgomery Street.

Table 82. 180 New Montgomery Street (ES-28) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	2nd St/ Townsend St	80%
12 – Folsom/ Pacific	24th Street BART Station to Van Ness and Pacific via Pacific, Sansome, and Folsom	20	20	20	108	Harrison St/ 7th St	57%
14 – Mission	Daly City BART to Ferry Plaza via Mission	8	8	7	285	Mission St/ Precita St	40%
14R – Mission Rapid	Daly City BART to Ferry Plaza via Mission	8	8	8	467	Mission St/ 24th St	74%
14X – Mission Express	Daly City BART to Ferry Plaza via Mission	6	N/A	7	318	6th St/ Harrison St	56%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St and 5th St	8	12	12	260	Stockton St/ Sutter St	82%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

Shuttle

While the AAU postsecondary educational institutional use at ES-28 is estimated to generate approximately 141 shuttle riders during the PM peak hour, 65 riders in the inbound direction and 76 riders in the outbound direction, the current level of shuttle demand as observed by CHS on March 2016 is approximately 30 percent lower than the estimated demand. Appendix TR-L includes a summary of trip generation and travel behavior survey conducted at ES-27. Shuttle demand is likely higher at different times of the day for this site, depending on class scheduling. The site was not served by AAU fixed-route shuttle service until the spring semester in 2011. As of spring 2015, four shuttle bus routes (D, E, H, and I) operate with 20- to 30-minute headways each and a total seating capacity of 348 during the PM peak hour. It is noted that this shuttle stop has been used as a hub transfer stop between routes since 2011. While the shuttle buses are observed to arrive often bunched together due to traffic conditions along the route, they operate with a fixed schedule and do not wait for transfers or lay over at this location.

Based on the current shuttle capacity serving this site, the estimated demand generated by this site (approximately 141 PM peak hour shuttle bus riders) and a portion of 109 shuttle riders from 77 New Montgomery Street (ES-27) are likely accommodated on Routes D, E, H and I. However, since these routes also serve other residential and institutional locations and given the lower shuttle demand as observed by CHS Consulting Group, a Condition of Approval to monitor shuttle demand on these routes is recommended below.

Since the spring semester in 2011, Routes D, E, H, and I use the existing 103-foot-long shuttle-only passenger loading zone with a “No Parking Shuttle Bus Zone” sign along the frontage of ES-28 between 7:00 a.m. and 2:00 a.m., Monday through Sunday. Based on the current shuttle schedule and shuttle bus size serving the site, the existing shuttle demand requires providing an 80-foot-long loading zone (see Appendix TR-H for loading zone analysis). Although the existing 103-foot-long shuttle zone would be sufficient to accommodate the estimated demand, a recommended Condition of Approval is suggested to monitor shuttle on-time performance on an ongoing basis to manage the number of shuttle vehicles arriving at the white passenger loading zone.

New Montgomery Street is not part of a designated bicycle route, and no Muni routes operate along New Montgomery Street. Therefore, the AAU shuttles on New Montgomery Street do not directly conflict with bicycle traffic or Muni vehicles.

Pedestrian

The AAU postsecondary educational institutional use at ES-28 generates approximately 745 pedestrian trips during the PM peak hour, 225 walking, 380 transit, and 140 shuttle trips. The 140 shuttle walking trips are short in length, from the building entrance to the shuttle zone on New Montgomery Street, in front of the building. Adjacent to the site, Howard Street is designated as a High Injury Corridor in the City’s Vision Zero network. Intersections near the site have well-defined crosswalk markings, pavement delineations, and traffic lights. The New Montgomery Street/Howard Street intersection has pedestrian crossing signal heads along the north and east legs. Sidewalks along Natoma Street, New Montgomery Street, and Howard Street are approximately 7, 15, and 12 feet wide, respectively. There is a curb cut at the rear of the site to the off-street loading area, with a driveway on the north side of Howard Street. The primary pedestrian access to the site is from New Montgomery Street through a doorway. There is a secondary exit onto Howard Street for fire egress.

Pedestrian volumes were observed to be generally heavy in the vicinity of the site. Due to large numbers of AAU students using the sidewalk to wait for shuttle buses, loitering, and socializing, effective sidewalk width is reduced, especially near the main entrance to the building. Pedestrian flows were observed to be restricted at times, especially before or after classes and during lunch time and peak afternoon commute hours. The land uses in the area are a mix of offices on the upper levels, and retail and restaurant uses on the ground floor.[818] The 745 pedestrian trips at ES-28 and 579 pedestrian trips at nearby 77 New Montgomery Street (ES-27) add pedestrian volumes to the area, but generally the adjacent pedestrian facilities on New Montgomery Street, which are 14 feet in

[818] Field observation was made by CHS on Wednesday, July 15, 2015, between 1:00 p.m. and 3:00 p.m.

width, accommodate the estimated pedestrian trips, and have not been substantially blocked by the additional AAU pedestrian trips.

A recommended Condition of Approval to assess/monitor shuttle service is presented below. If shuttle service could meet the demand at ES-28, students would be less likely to gather or wait for long periods of time for shuttles along New Montgomery Street. Since pedestrian flows on adjacent sidewalks are intermittently heavy, a recommended Condition of Approval to monitor pedestrian volumes at the site, particularly student volumes during the peak periods, is suggested. If pedestrian traffic is observed to be blocked during any of these periods, then AAU should implement measures such as having students wait inside for shuttles (providing up-to-date arrival information [similar to NextBus]), reminding students not to block adjacent sidewalks, and/or providing a gathering area inside the building.

Bicycle

The AAU postsecondary educational institutional use at ES-28 generates 30 bicycle trips during the PM peak hour, eight trips in the inbound direction and 22 trips in the outbound direction. The closest bicycle routes are a bicycle lane on Howard Street (Route 30) adjacent to the site in the westbound direction, Route 50 along Market Street, and Route 11 along Second Street, which has sharrow lanes. There is no bicycle lane or designated route along New Montgomery Street. There are two bicycle racks with a total of 16 Class II bicycle parking spaces located near the entrance of the building. The type of bicycle rack is not consistent with San Francisco Planning Department guidance due to the rack's narrow support tubes, which are prone to cutting. Additionally, there are six Class II public bicycle racks (12 spaces) along New Montgomery Street. During the school year, observations indicate the AAU bicycle rack, the nearby public bicycle racks, and most signs and parking meters adjacent to ES-28 are heavily used for bicycle parking, indicating a high demand that is not being met. The site's 30 PM peak hour bicycle trips, in combination with 23 PM peak hour bicycle trips from nearby 77 New Montgomery Street (ES-27), have not substantially affected the operation or capacity of bicycle facilities in the area.

This site generates a bicycle parking demand of approximately 44 spaces.[819] Because of the high demand for bicycle parking, a Condition of Approval related to additional bicycle parking is recommended below. No bicycle parking is required for this site under the Planning Code.

Loading

The AAU postsecondary educational institutional use at ES-28 generates approximately 19 daily truck trips, which equates to a loading demand of approximately 0.9 trip in an average hour or 1.1 trips during the peak demand hour. The building includes an off-street loading area which is used on a daily basis. Trucks do not pull into the loading dock, but instead park at the entrance of the loading dock. Additionally, there are approximately 40-foot-long freight loading (yellow) zones adjacent to the site on New Montgomery Street.

---

[819] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015. The existing yellow freight loading zones on Natoma Street and New Montgomery streets were occupied most of the time during the observation period. On-street parking spaces along adjacent streets experience moderate to high parking utilization during the midday period. Given the existing loading dock, the site is able to accommodate the estimated demand for 0.9 trip in an average hour and does not present a substantial constraint on the AAU use at this location.

Garbage collection at this site occurs on the north side of Howard Street, next to the off-street loading area. Trash receptacles are pulled from the off-street loading dock and are collected on an on-call basis.

Parking

The AAU postsecondary educational institutional use at ES-28 generates a parking demand of 53 parking spaces (14 spaces by faculty/staff, two spaces by visitors, and 37 spaces by commuter students). The site does not provide any off-street parking spaces, so parking demand must be met on-street or at off-site facilities, such as Moscone Center garage at 255 Third Street or the SFMOMA garage at 147 Minna Street. Similar to 77 New Montgomery Street (ES-27), it is reasonable to assume that most commuter students do not park in the vicinity for cost reasons, but that faculty and staff could park at off-street garages (e.g., Moscone Center garage at 255 Third Street or the SFMOMA garage at 147 Minna Street) in the area. An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces bordering the site generally consist of time-limited (2-hour) metered parking. Table 83 summarizes on-street parking supply and weekday midday occupancy for streets bordering ES-28. There are a total of 18 on-street parking spaces surrounding the site. During the survey period, parking occupancy was low, averaging about 28 percent between 1:00 p.m. and 3:00 p.m.

Table 83. 180 New Montgomery Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Natoma St	New Montgomery St	End	South	7	0	0%
Howard St	New Montgomery St	Hawthorne St	North	5	4	80%
New Montgomery St	Natoma St	Howard St	East	6	1	17%
			West	0	0	0%
Total				**18**	**5**	**28%**

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

There are 29 public off-street parking facilities with a total of 5,193 parking spaces within walking distance of the site. Parking occupancy at off-street parking facilities was not observed.

Some of the 53 parking space demand related to the postsecondary educational institutional use at ES-28 is met by on- or off-street parking facilities. However, these spaces are limited in amount and the AAU use at this building could have potentially added to the overall parking demand in the area. Transportation Demand Management strategies are part of a recommended Condition of Approval for all AAU sites (see p. 3-28 and Appendix TDM at the end of this Memorandum) to encourage AAU to reduce staff and faculty vehicle trips and parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately 0.5 mile west of the site. From the station, vehicles are able to access the AAU site via Third, Howard, and New Montgomery streets and would be able to park along New Montgomery Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU's use of ES-28 include a potential shuttle deficiency, pedestrian volume concern, a limited amount of AAU and Class II public bicycle parking available at the site, and a limited amount of vehicle parking to meet demand. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-28: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-28: TR-2, Monitor Pedestrian Traffic. Since pedestrian flows on adjacent sidewalks of the 180 New Montgomery Street site are intermittently heavy, AAU shall monitor pedestrian volumes and queuing on the sidewalk at the site, particularly student volumes during the peak periods. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals [similar to NextBus]), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity, taking into account possible operational and safety considerations.

Recommended Condition of Approval, ES-28: TR-3, Bicycle Parking. AAU shall provide at least an additional 16 Class I bicycle parking spaces (adding to the existing 28, for a total of 44 spaces), or shall coordinate with SFMTA to provide 16 Class II bicycle parking spaces along New Montgomery Street to meet the estimated demand. The Class II bicycle parking spaces on the adjacent street shall be coordinated and reviewed by SFMTA. Bicycle parking shall be consistent with San Francisco Planning Department guidance. AAU may propose Bay Area Bike Share as an alternative.

.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 180 New Montgomery Street site (ES-28) is located on the west side of New Montgomery Street, south of Natoma Street and north of Howard Street in the Yerba Buena Center neighborhood. AAU's institutional uses in ES-28 are composed of classrooms, labs/studios, a library, offices, and a café. No fixed-route shuttle buses served this site until 2011. As of spring 2015, four shuttle bus routes (D, E, H and I) use the existing 103-foot-long shuttle-only passenger loading zone. According to the San Francisco Transportation Noise Map,[820] the existing traffic noise level near ES-28 from vehicular traffic along New Montgomery Street was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms and offices are not considered protected sensitive land uses under the *San Francisco General Plan*.

AAU operations at ES-28 have resulted in the installation of one rooftop condenser unit and one cooling tower. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[821] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU, and continue to be compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-28 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as would have fixed noise sources at the site; therefore, the change in use at ES-28 would not have exceeded the standards established by the City for effects on sensitive receptors near ES-28.

[820] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[821] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.

Vehicular traffic noise at ES-28 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 830 trips per day.[822] According to the San Francisco Transportation Noise Map,[823] the existing traffic noise level near ES-28 from vehicular traffic along New Montgomery and Howard streets was approximately 74 dBA L_{dn}. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-28 by AAU contribute approximately 52.5 dBA L_{dn} to local traffic noise levels. When the ES-28 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-28 has not substantially increased vehicular traffic noise near the site.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, library, offices, lounge, and café) at ES-28, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 1995, when the AAU occupied the building. Area sources were estimated based on a 190,066-square-foot “Junior College” land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of 830 round trips per day. There are no on-site generators or boilers at ES-28. Since CalEEMod only allows the user to model years 1990, 2000, and 2005, an operational year of 1990 was conservatively assumed for ES-28. Table 84 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-28, which are all shown to be below the Bay Area Air Quality Management District’s (BAAQMD’s) daily and annual significance thresholds.

ES-28 is located in the Air Pollutant Exposure Zone, as explained in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-60; however, there are no residential uses at ES-28 and there are no emergency backup generators or boilers located on this site. Therefore, the operation of stationary sources at ES-28 has not increased health risks to nearby sensitive receptors. The AAU change in use has not resulted in the exposure of new sensitive receptors within the Air Pollutant Exposure Zone and has not resulted in any impacts to on-site sensitive receptors

[822] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
[823] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Table 84. 180 New Montgomery Street (ES-28) Operational Emissions

Source	Average Daily (pounds/day)[1]				Maximum Annual (tons/year)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	5.28	<0.01	<0.01	<0.01	0.96	<0.01	<0.01	<0.01
Energy	0.15	1.39	0.11	0.11	0.03	0.25	0.02	0.02
Mobile	28.56	35.45	4.50	1.61	5.28	6.79	0.79	0.29
Total Emissions	33.99	36.83	4.60	1.71	6.27	7.04	0.81	0.30
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-28 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-28 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-28: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use would be insubstantial.

Wind and Shadow

The tenant improvements at ES-28 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-28.

Recreation

As shown on Figure 4, p. 3-63, 180 New Montgomery Street (ES-28) is located within 0.25 mile of one publicly owned space: Yerba Buena Gardens. Yerba Buena Gardens, bounded by Fourth Street, Third Street, Mission Street, and Folsom Street, features gardens, terraces and seating areas, children's play areas, water features, and other indoor features such as art galleries, cafés, the Metreon and Moscone Event Center. Other publicly owned parks are within a 0.5-mile distance of ES-28, including Union Square and South Park. In addition, numerous privately owned public open spaces (POPOS) are located downtown within a 0.25 mile walking distance of ES-28, including four which are open during business hours (101 Second Street, 55 Second Street, 235 Second Street, and the Marriott Courtyard at 299 Second Street) as well as 8 POPOS available at all times (100 First Street, 25 Jessie Street, 555 Mission Street, 560 Mission Street, 595 Market Street, 611 Folsom Street, 71 Stevenson Street, and Golden Gate University at 536 Mission Street).[824, 825]

As described in Population and Housing on p. 4-542, the capacity of ES-28 is 1,716 occupants. The change in use from office to postsecondary educational institution at ES-28 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for Yerba Buena Gardens and is typical for the

---

[824] San Francisco Planning Department, Privately-Owned Public Open Space and Public Art (POPOS) Map. Available online at: http://www.sf-planning.org/index.aspx?page=3339#map. Accessed on February 20, 2016.

[825] Privately owned public open spaces in the City consist of publicly accessible spaces in the form of plazas, terraces, atriums, and small parks and landscaped areas (some with few pedestrian amenities) that are provided and maintained by private developers. In San Francisco, POPOS mostly appear in the Downtown office district area.

existing densely developed downtown. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-28 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[826] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-28. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[827] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-28 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and

[826] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[827] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

is in the process of implementing new strategies to meet its zero waste goal by 2020.[828] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[829] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-28 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[830] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

180 New Montgomery has a capacity of 1,716 occupants (1,430 students and 286 faculty and staff). The change in use from office to postsecondary educational institution would not represent a substantial change in the daytime population of the area, as the population of an office building would be similar to that of a postsecondary educational institutional use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change of use at ES-28.

Fire and Emergency Services

ES-28 is located within 2,500 feet of Fire Station No. 8 (36 Bluxome Street) and Fire Station No. 1 (935 Folsom Street). Fire Station No. 8 consists of a single fire engine and truck.[831] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

---

[828] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[829] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[830] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[831] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to in under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to in under 4:48 minutes. In 2011, Fire Station No. 8 responded to 857 non-emergency calls with an average response time of 9:51 minutes, with 90 percent of non-emergency calls responded to in under 16:56 minutes. Fire Station No. 8 responded to 2,455 emergency calls with an average response time of 3:38 minutes, with 90 percent of emergency calls responded to in under 4:55 minutes.[832]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-28 meet the Citywide emergency transport goals.

As described above on p. 4-542, the change in use from offices to postsecondary educational institution would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed a new fire sprinkler system and made life safety upgrades, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change of use at ES-28.

Libraries

The nearest public library to ES-28 is the Main Library. Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-542, the change in use from office to postsecondary educational institution would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Main Library. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change of use at ES-28.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as a postsecondary educational institution would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have

[832] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-28.

Biological Resources

ES-28 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-28. ES-28 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. No substantial effect on biological resources has occurred as a result of the change in use of ES-28.

Geology and Soils

ES-28 is underlain by Quaternary dune sands.[833] The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is described as clean, well-sorted, fine- to medium-grained sand. The dune sand is typically highly permeable. Within San Francisco, the dune sand reaches thicknesses of up to 150 feet and is underlain by highly fractured bedrock. At the property and immediate vicinity, atop the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is reported to be approximately 20 feet below ground surface and flows northeast.[834] Because building alterations undertaken by AAU were mostly interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-28 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake origination from the Hayward Fault.[835,836] ES-28 is located within a liquefaction zone.[837] Buildings that are composed of unreinforced masonry, have a first floor or basement “soft story,” or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-28 is a steel-reinforced concrete construction building. ES-28 is not an unreinforced masonry building and

[833] Geologica, Inc., Phase I Environmental Site Assessment for 180 New Montgomery Street, San Francisco, CA, March 2003.
[834] Geologica, Inc., Phase I Environmental Site Assessment for 180 New Montgomery Street, San Francisco, CA, March 2003.
[835] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[836] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[837] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

does not have a soft story.[838, 839] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could still be vulnerable during an earthquake, the building alterations carried out after the change in use from office to postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-28 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, painting, and security cameras). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-28 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[840] ES-28 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-28.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-28 identified a vent pipe, which is characteristic of an old underground storage tanks (USTs) or oil storage tanks. The vent pipe was discovered above the door of the Natoma Street entrance. There was no other indication of a UST or evidence identified during the government and agency record search. The use of the general vicinity for industrial purposes suggests that regional soil and groundwater contamination may be present.[841] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

---

[838] City and County of San Francisco, UMB – All Report, December 1, 2014.

[839] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[840] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

[841] Geologica, Inc., Phase I Environmental Site Assessment for 180 New Montgomery Street, San Francisco, CA, 94107, March 2003.

The date of the building's construction, 1920, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present in the basement and on the ground floor, although there is no evidence of damage or leaks. No peeling paint was detected.[842] Asbestos was removed from the building in accordance with state and federal laws and regulation in 2010.[843] Therefore, effects from these hazardous materials would have been negligible.

AAU currently uses ES-28 to house its library, as well as classrooms, labs, art studios, offices, and a café. Hazardous materials that are used, stored, and disposed of at ES-28 include torch fuel, oil, adhesives, solder materials, bronzing flux, degreasers, cutting fluids, solvents, sealants, paints, epoxy putty, and mold making materials associated with the postsecondary educational institutional use.[844] These products are stored in hazardous materials cabinets; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[845] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. ES-28 is enrolled in the SFDPH Hazardous Materials Unified Program Agency (HMPUA) Program.[846] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan. Article 22 authorizes the SFDPH HMUPA to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-28 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-28 to ensure compliance with applicable regulations. Because the previous use of the building was offices, hazardous materials use has likely increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-28.

Tenant improvements at ES-28 associated with the conversion of office space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-560 - 4-561. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits

[842] Geologica, Inc., Phase I Environmental Site Assessment for 180 New Montgomery Street, San Francisco, CA, 94107, March 2003.
[843] Bluewater Environmental Services, Uniform Hazardous Waste Manifest, EPA Form 8700-22, December 29, 2010.
[844] Academy of Art, Hazardous Materials Inventory List for 180 New Montgomery Street, August 6, 2015.
[845] Academy of Art, Hazardous Materials Inventory List for 180 New Montgomery Street, August 6, 2015.
[846] Permit numbers: EPA# CAL000129564; CERS# 10058527.

Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[847] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-28 no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-28. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-28 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-28 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-28 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[848] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-28 has had no substantial effects on agriculture or forest resources.

---

[847] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 180 New Montgomery, March 4, 2016.

[848] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.20. 58–60 Federal Street (ES-30)

Property Information

The 58–60 Federal Street existing site (ES-30) is a five-story, 91,522-square-foot building constructed in 1912, located on Federal Street between Second and Delancey streets, in the South of Market (SoMa) neighborhood (Photographs 125–128). Figure 17, ES-30: 58-60 Federal St – Existing Condition, in Appendix TDM, shows the location of this site. The site is Lot 074 in Assessor's Block 3774. The building has a capacity of 636 occupants (595 students, 41 faculty and staff).

Academy of Art University (AAU) occupied ES-30 in 2002 and in 2010 used the former office building for art studios, a frame shop, a prop room, and archival room. AAU currently uses the building for classrooms, labs/art studios, offices, an art store, and student and faculty lounges. The site does not include a designated shuttle stop. AAU shuttle buses have been observed to use an available curb space or parking spaces (when not occupied) along the west side of Second Street, between Taber Alley and Federal Street for passenger loading/unloading activities. Double-parking occurs along Second Street if no parking space is available. The site is served by Route G.

The site is in a MUO (Mixed-Use Office) Zoning District, which is designed to encourage office uses and housing as well as allowing a variety of retail, production, distribution, repair, home services, and business services uses. ES-30 is located in a 65-X height and bulk district. ES-30 is located within the East SoMa and South of Market Area Plans.

Tenant Improvements and Renovations

AAU painted a sign on the building's primary façade and logos on the garage door that have since been removed. AAU added concrete piers to provide vertical support in 2014. AAU installed a fire alarm, and corrected wooden step risers in two rooms to provide seismic restraints to movable partitions in response to a Notice of Violation (NOV) in 2011. AAU modified the fire sprinkler system and life safety upgrades without building permits in 2013 and 2014.[849] AAU added security cameras without building permits. AAU installed one rooftop condenser unit and seven exhaust fans without building permits.

Required Project Approvals

The 58-60 Federal Street existing site (ES-30) would require a building permit under San Francisco Planning Code (Planning Code) Section 171 to change the use from office to educational services within a MUO Zoning District. A Certificate of Appropriateness (COA) is required under Planning Code Article 10 to legalize or modify past building alterations performed without benefit of permit.

[849] Building Permits obtained for the improvement and renovation at ES-30 are: BPA #201406138388 (concrete piers), #201108152452 (correct wooden step riser in response to NOV #201054769), #201412012705 (fire sprinkler system), #201303011305 (fire alarm), #201103091746 (life safety upgrades in response to NOV #201054769, permit never issued).

Photograph 125. 58–60 Federal Street (ES-30).

Photograph 126. Federal Street, facing southwest toward 2nd St.

Photograph 127. Federal Street, facing southeast toward Delancey Street.

Photograph 128. The rear of ES-30. Federal Street, facing southwest.

Plans and Policies and Land Use

ES-30 is located in the SoMa neighborhood. In the immediate vicinity of ES-30 there are a mix of land uses including commercial, residential, and parking. On the subject block, the buildings range from two to five stories and are predominantly office use, with exception of residential buildings at 1 and 41 Federal Street, to the east of ES-30. Land uses along Second Street are largely offices interspersed with restaurants and small retail operations. To the east and southeast of ES-30 and Second Street, land uses transform from principally office to residential, retail, and restaurant uses.

Federal Street runs north-south for approximately 0.16 mile between Second Street and Delancey Street. ES-30 lies in the middle of Federal Street and divides it into two distinct and separated streets with no connection. A parking lot serves office uses at 75 Federal Street and an underground public/private parking lot is east of ES-30, below the residential building at 41 Federal Street. The office building at 501 Second Street has reserved parking in its lower level accessed from the Federal Street frontage.

Adjacent to and south of ES-30, a new six-story commercial office building at 270 Brannan Street is under construction. 270 Brannan will consist of 189,000 square feet of office uses and an approximately 13,000-square-foot sub-grade parking garage containing 16 off-street parking spaces with egress to Brannan Street.

Many of the buildings along Second Street and the western portions of Federal Street were built in the nineteenth and early twentieth century as warehouses and light industrial buildings that served San Francisco’s working waterfront and are part of the South End Historic District. The buildings within the South End Historic District have primarily been converted to office uses.

The zoning on either side of Second Street between Interstate-80 and King Street is a MUO (Mixed-Use Office). The MUO Zoning District is designed to encourage office uses and housing, as well as small-scale industrial and arts activities.[850] The South Beach Downtown Residential Use District is on the eastern side of Federal Street. This Zoning District supports high-density residential uses and supporting commercial and institutional uses.[851] ES-30 is located within the East SoMa and South of Market Area Plans. The South of Market and East SoMa Area Plans encourage an appropriate mix of uses and zoning controls. The use of ES-30 as a postsecondary educational institution is consistent with these plans. ES-30 is located in a 65-X height and bulk district.

As noted above, the use at ES-30 has been changed by AAU from office to an educational services use with classrooms, labs/studios, offices, an art store, and student and faculty lounges. The change in use of the existing structure involved limited exterior alterations described above under Tenant Improvements and Renovations. Immediately outside of the ES-30 west entrance, AAU has installed an outdoor leisure area with benches, chairs, tables, and an umbrella. The use of the site as an educational services use within the MUO Zoning District varies from the predominantly office and residential uses in the area; however, educational services are allowed within the MUO Zoning District as defined in Planning Code Section 890.50(c). The educational services use of ES-30 does

[850] Planning Code Section 842.
[851] Planning Code Section 829.

not conflict with the goals and objectives identified in the East SoMa and South of Market Area Plans, both of which encourage a mix of uses.

The educational services use may act as a perceptual line between the primarily office uses to the west and the residential uses to the east, but the change in use would not physically divide an established community. The educational services use does not change the scale or neighborhood character, as limited exterior alterations to the building have occurred. Therefore the ES-30 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-30 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-30 is 636 occupants (595 students and 41 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. The change in use may indirectly result in new residents of San Francisco due to student and employment growth at the site. Occupation by AAU may have resulted in displacement of employees; however, office space was likely found elsewhere. Conservatively presuming that ES-30 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[852]

The change in use at ES-30 from an office use to educational services would have minimally changed the daytime population because the building, as an office, likely had a comparable capacity. AAU is essentially replacing the office building population; therefore, the daytime population of the site would be fundamentally unchanged. Therefore, no substantial effect on population has occurred from the change in use at ES-30.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU. The housing demand created by ES-30 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from office to educational services at ES-30 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-30 did not result in the displacement of housing because this site was previously used as office.

[852] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

Aesthetics

ES-30 is a five-story concrete warehouse that exemplifies the development of the industrial San Francisco waterfront between the years 1867 and 1935. ES-30 is a contributor to and is located in the South End historic district, which is an important visual landmark for the City with a large number of intact masonry warehouses. The warehouses are reminders of the maritime and rail activities that helped make San Francisco an important turn-of-the-century port city.[853] The buildings of the South End Historic District represent a rich and varied cross-section of the prominent local architects and builders of the period.

The topography is generally flat and does not feature any prominent hills or drastic elevation changes. The visual character of Second Street is primarily small-, medium-, and large-scale commercial buildings that are converted warehouses or light industrial spaces. Federal Street consists of medium-scale commercial buildings and accompanying parking facilities.

An overhead electrical distribution line runs along the south side of Federal Street and east side of Second Street. Overhead San Francisco Municipal Railway (Muni) wires run along Second Street. Buildings along this street are typically built with standard brick masonry and reinforced concrete. Street trees line Second Street and several street trees are located along Federal Street. Some of the street trees are mature and can create shade on sidewalks and reduce the visual impact of building massing.

Second Street is a medium- to high-volume commuter street that serves local neighborhood traffic. In contrast, Federal Street dead-ends at ES-30 and is generally only used by pedestrians and cars whose destination is on that street.

The change in use of ES-30 has caused no changes to the visual character of the building or neighborhood. AAU had installed signage on the walls and garage doors, but they were subsequently removed from the garage doors and walls in 2010 and 2013, respectively.[854] Currently, no exterior features are unique to the AAU use. No scenic vistas or view corridors are located near ES-30. Therefore, no substantial effect on aesthetics from the change in use has occurred.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

Constructed between 1910 and 1912, ES-30 was commissioned by the Rincon Warehouse Company. The warehouse is five stories in height and rectangular in plan, with steel-reinforced concrete construction. The property is built out to fill the lot and set flush with the sidewalk. Utilitarian in design, the building is capped with a flat roof, terminating in a shallow copping along the sixth story. Centered atop the fifth story of the property is a one-story sixth floor. The façade is characterized by an asymmetrical, purpose-driven design, with little evident or extant ornamental detailing on the exterior. On the primary elevation, the entrance consists of paired glass doors with a single-light

[853] Planning Code Appendix I to Article 10.
[854] San Francisco Department of Building Inspection, Building Permit #201301248671 and #201301248671, March 28, 2013.

transom, deeply recessed within the wall plane. Framing the entrance portico is a Classical Revival–inspired pediment and door surround. The main entrance, currently located in the north portion of the façade, was originally centered on the façade. On the primary elevation, access is provided through a series of roll-up doors of various sizes, as well as single and paired doors with simple wood frames. Fenestration consists of a variety of window configurations and types, with multi-light, fixed, and casement steel-frame windows. As with the primary elevation, the northeast elevation exhibits a series of roll-up doors on the first and second stories. Fenestration consists of varying window types, including steel-frame multi-light, fixed, casement, and sliding windows. On the northwest elevation, the overall pattern of window openings is asymmetrical and program-driven. Metal railings have been added in front of some of the larger sliding windows (for representative photographs refer to Photographs 129–131).

Photograph 129. 58–60 Federal Street.

Photograph 130. 58–60 Federal Street, detail, main entrance, primary elevation.

Photograph 131. 58–60 Federal Street, southwestern perspective of the northeastern elevation.

Site History

Constructed between 1910 and 1912, in advance of the 1914 opening of the Panama Canal, 58–60 Federal Street was commissioned by M.J. Hawley of the Rincon Warehouse Company for an estimated cost of $200,000.[855] Designed by Perseo Righetti & August G. Headman, the building was "one of the largest and most costly warehouses in the city" at the time of its construction.[856] The site was particularly promising, given its proximity to both the harbor and adjacent rail lines, an advantage that had become "recognized within the last two weeks by capitalists, who bought two valuable holdings in the same warehouse districts."[857] The building was originally occupied by Weston Basket and Barrel Company, which used the space for offices, storage, and manufacturing operations.

The cohesive, industrial character of the adjacent area reflects "the development of warehouses over a 120-year period along the southern waterfront" of San Francisco.[858]

The interdependence of architecture and history can be seen from a look at the evolution of warehouse forms along the southern waterfront. Unlike most other areas of the San Francisco waterfront, the South End district contains an extraordinary concentration of buildings from almost every period of San Francisco's maritime history. Several street fronts are characterized by solid walls of brick and reinforced concrete warehouses. With this harmony of scale and materials, the South End Historic District is clearly a visually recognizable place. The buildings of the South End Historic District represent a rich and varied cross-section of the prominent local architects and builders of the period.[859]

[855] *San Francisco Chronicle*, "Improvement is Reported in the City's Real Estate Situations," October 1, 1910.
[856] *San Francisco Chronicle*, 1910.
[857] *San Francisco Chronicle*, 1910.
[858] Planning Code, Article 10, Appendix I, South End Historic District.
[859] Planning Code, Article 10, Appendix I, South End Historic District.

California Register of Historical Resources Evaluation

Known as the Rincon Warehouse, this industrial property exemplifies the development of the San Francisco waterfront in the mid- to late nineteenth and early twentieth century. On the basis of this association, the property is a contributor to Article 10–designated South End Historic District. The district's period of significance, 1867 to 1935, marks the era when "the waterfront became a vital part of the City's and nation's maritime commerce. The buildings of the South End Historic District represent a rich and varied cross-section of the prominent local architects and builders of the period."

In addition, the subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR). The property at 58–60 Federal Street (as well as the cohesive grouping of adjacent waterfront-related properties) appear eligible for the CRHR under Criterion 1, for their exemplification of the development of the San Francisco waterfront between 1867 and 1935. The property also appears eligible for the CRHR under Criterion 3, as an intact warehouse within the larger historic district of waterfront-related properties.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[860] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). The subject property retains integrity and remains eligible as a contributor to the National Register of Historic Places– and CRHR-eligible historic district. The period of significance is 1912 to 1935.

Character-Defining Features Summary

Exterior

- Steel-reinforced concrete construction
- Utilitarian, program-driven design
- Five-story massing, with centered one-story pop-up on roof; one- and two-story wings
- Bands of industrial sash, steel-frame windows with no ornamental detailing, slightly recessed in wall plane
- Door surround with Classical Revival-inspired pediment on ground-floor of west elevation
- Roll-up bay (former elevator) door openings on ground floor
- Original elevator door on west elevation
- Ghost sign reading "Weston" on central upper bay

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for*

[860] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

Rehabilitation. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Conclusion

The project complies with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-30 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-30 is located in the middle of Federal Street between Second and Delancey streets in the SoMa neighborhood. The approximately 99,580-square-foot, five-story Rincon Warehouse building was built as 1912. This building currently has approximately 91,522 gross square feet of AAU postsecondary educational institutional use, comprised of classrooms, labs/studios, offices, an art store, and student and faculty lounges.[861] On a typical day there are approximately 322 students and 41 faculty/staff members at this site.

The basement and sub-basement levels of the building include a 37-space parking garage, of which nine spaces are reserved for AAU staff and the remaining 28 spaces are leased to a tenant (51 Federal Street Associates). The parking garage is accessed from the eastern portion of Federal Street. There is one main pedestrian entry to the building provided at the western end of Federal Street near the loading dock area and a secondary entrance at the eastern end of Federal Street. There are four bicycle racks in the building in the basement with a total of 36 Class II bicycle parking spaces. AAU shuttle bus Route G uses any available curb space along the west side of Second Street, between Taber Alley and Federal Street, for passenger loading.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at this AAU site generates approximately 455 person trips (174 inbound trips and 281 outbound trips) and 74 vehicle trips (26 inbound trips and 48 outbound trips) during the weekday PM peak hour.

[861] Trip generation for this site was estimated based on a total square footage of 99,522 square feet as reported in 2011 IMP. Given the reduced total square footage as of 2016 (91,522 square feet), the trip estimation for this site presents a conservative trip generation estimation.

Traffic

ES-30 is located at the end of Federal Street (Federal Street dead-ends at the entrance of this building). AAU students rely on Federal Street sidewalks to access Second Street. Traffic volumes along Second Street are moderate during the AM peak period and midday, but very high during weekday PM peak period when there are long queues to the Bay Bridge. Vehicle access to the parking garage is from the east side of Federal Street. Loading access to ES-30 is from the west side of Federal Street. Primary pedestrian access is from the west side of the building. SFMTA operates one Muni route (10-Townsend) along Second Street. AAU shuttle bus Routes H and I served this location in 2010; only Route G serves this site in 2015.

Existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions, are discussed below. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *the Better Streets Plan*.[862,863] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[864]

Second Street is a north-south Downtown commercial street that runs between Market Street and King Street. In the vicinity of ES-30, Second Street has two travel lanes in each direction and metered parking on both sides of the street. Traffic volumes along Second Street are moderate during the AM peak period and midday, but very high during the weekday PM peak period when there are long queues to the Bay Bridge. The *San Francisco General Plan* classifies Second Street as a Neighborhood Pedestrian Street (Neighborhood Commercial Street).

Federal Street is an east-west alleyway that runs discontinuously between Second Street and Delancey Street. It has one travel lane in each direction and dead ends at ES-30 (on both sides). Parking is prohibited along both sides of the street.

The postsecondary educational institutional use at ES-30 adds 74 additional vehicle trips to adjacent streets during the PM peak hour (27 inbound and 47 outbound). There are a total of 37 off-street parking spaces provided on the site, but only nine of these spaces are reserved for AAU use and the remaining spaces are leased. Therefore, the majority of AAU-related vehicle trips likely park on-street (where available) and in off-street parking garages (such as the California Parking Garage at 470 Brannan Street or the Pacific Park Garage at 250 Brannan Street). Therefore, the 74 PM peak hour vehicle trips are distributed among downtown streets. Based on the level and likely distribution of the additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-30. The level of PM peak hour traffic as a result of the AAU change in use, even on streets or at intersections that operate poorly, does not represent a substantial contribution to these operating conditions. Parking circulation is further discussed below.

[862] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[863] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[864] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

Transit

The AAU postsecondary educational institutional use at ES-30 generates approximately 230 transit trips during the PM peak hour, 86 trips in the inbound direction and 144 trips in the outbound direction. ES-30 is served by one Muni bus route (10-Townsend) along Second Street, two routes (30-Stockton and 45-Union/Stockton) along Third Street, and two light rail lines (K-Ingleside/T-Third and N-Judah) along The Embarcadero. These routes provide further connections to Muni and regional rail service on Market Street, and regional rail Caltrain service at King Street and 4th Street. The nearest bus stop is located at the Brannan Street/Second Street intersection, which serves the 10-Townsend route. This bus stop does not have a shelter or service information (see Figure 9, p. 4-519).

Table 85, 58-60 Federal Street (ES-30) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour**,** presents the AM, midday, and PM frequencies of Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. All routes except for the Muni N-Judah light rail line operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

Table 85. 58-60 Federal Street (ES-30) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	2nd St/ Townsend St	80%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union/ Stockton	Lyon and Greenwich to Caltrain Depot via Union and 3rd	8	12	12	260	Stockton St/ Sutter St	82%
KT - Ingleside	Castro to Sunnydale via Market, Embarcadero, and Bayshore	8	10	8	585	Embarcadero/ Harrison St	73%
N - Judah	La Playa to Caltrain via Duboce, Market, and Embarcadero	7	8	8	1,908	Duboce St/ Church St	86%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed to routes in the vicinity of ES-30:

- Route 10-Townsend would have increased frequency east of Van Ness Avenue from 20 to six minutes during AM and PM peak period and from 20 to 10 minutes during midday period. It would also have a contraflow transit-only lane on Sansome Street.
- Route 30-Stockton would increase frequency east of Van Ness Avenue from 4 to 3.5 minutes.
- Route KT-Ingleside increased frequency during AM and PM peak hours from 9 to 8 minutes.
- Route N-Judah would increase frequency during AM peak hours from 7 to 5.5 minutes and during PM peak hours from 8 to 6 minutes.

The 230 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-30 are distributed to several Muni routes as well as regional transit services. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, the increase in transit demand, in combination with transit trips from other AAU locations, has not made a substantial contribution to the transit service in the area. AAU shuttle service to the site potentially conflicts with the 10-Townsend transit vehicles on Second Street due to a lack of designated shuttle stops along Second Street where the 10-Townsend operates.

Shuttle

The postsecondary educational institutional use at ES-30 site generates approximately 61 shuttle riders during the PM peak hour, 28 riders in the inbound direction and 33 riders in the outbound direction. Shuttle demand is likely higher at different times of the day for this site, depending on class scheduling. In 2010, the site was served by two shuttle bus routes (H and I), both of which operated every 15 minutes. The total seating capacity at that time for these two routes was 494 seats in the PM peak hour. Routes H and I operated at 63 and 78 percent capacity, respectively at the MLP during the PM peak hour. During the shuttle peak hour, Routes H and I operated at 126 and 130 percent capacity, respectively at the MLP. MLPs occur at 466 Townsend Street and on Route H and at 79 New Montgomery on Route I. As of spring 2015, one shuttle bus route (G) serves the site with 30-minute headways and a total seating capacity of 66 during the PM peak hour, an 87 percent reduction in service.

Based on the current capacity of shuttle service serving the site, the 61 shuttle riders generated at the site during the PM peak hour are a substantial contribution to the shuttle service and potentially result in overcrowding of shuttle buses, requiring additional shuttle bus trips to the site. Therefore, a Condition of Approval to assess and monitor shuttle bus ridership and capacity utilization of Route G is recommended below. If additional shuttle capacity is needed to serve the site, increasing shuttle frequencies or shuttle bus size are examples of how this could be achieved.

As indicated above, the site does not have a designated shuttle stop. Shuttle buses have been observed to use an available curb space or parking spaces (when not occupied) along the west side of Second Street, between Taber Alley and Federal Street, for passenger loading/unloading activities. Since there is not a designated white zone, if a parking space is not available, the shuttle bus double parks. During field observations, shuttle buses occasionally double parked along Second Street for passenger loading and unloading; however, double parking was usually of a short duration.[865] Moreover, students are required to cross Second Street via a crosswalk at the Second Street/Federal Street intersection to access the AAU site. Second Street is a designated bicycle route (Route 11), and the Muni 10-Townsend bus line operates along Second Street every 20 minutes during the PM peak hour. No substantial conflicts between AAU shuttle buses and bicycles and Muni traffic were noted due to the relatively low volume of AAU shuttle bus trips (two trips per hour) observed.

Considering the above, a recommended Condition of Approval is suggested for AAU to establish a shuttle zone at an alternate location, taking into account possible operational and safety considerations.

Pedestrian

The AAU postsecondary educational institutional use at ES-30 generates approximately 356 pedestrian trips during the PM peak hour, 65 walking, 230 transit, and 61 shuttle trips. Federal Street on both sides of the building is an alley with seven-foot-wide sidewalks. Second Street has well-defined crosswalk markings and pavement delineations in the vicinity of the site. The un-signalized intersection of Second Street and South Park Street, located 400 feet west of the site, has crosswalk markings along the north leg, which is frequently utilized by shuttle riders as they walk across Second Street from the existing AAU stop on the west side of the street. Federal Street, which dead ends at the site and serves as the main pedestrian access road, has seven-foot-wide sidewalks near the entrance to the building. Along the north side of Federal Street, there is a curb cut along most of the alley bordering the site to the west. The rear of 501 Second Street has seven parking spaces perpendicular to the north-side sidewalk, causing some conflicts between pedestrians walking along the north side sidewalk and vehicular movements. Conflicts also exist along Second Street at intersections near the site, as pedestrian volumes are high throughout the day. The main entry to the AAU building is on the southwestern side of the building.

Pedestrian volumes were observed to be generally light along Federal Street, but at times moderate before or after classes in the vicinity of the site. Pedestrians were observed to use the travel lanes on Federal Street due to the narrow sidewalk width and low traffic volumes along Federal Street. Pedestrian-vehicle conflicts were common during lunch and the PM peak hour at the Federal and Second Street intersection due to the heavy pedestrian volumes along Second Street. The gates at the loading docks and the garage entrance were closed during the observation period, and no instances of pedestrian-vehicle conflicts at these locations were observed.[866] Although intermittent pedestrian volumes may overwhelm pedestrian facilities along Federal Street during peak periods, the estimated 356 pedestrian trips at the site are generally accommodated on the adjacent pedestrian facilities (seven-foot-wide sidewalks along Federal Street and Second Street).

A Condition of Approval to work with SFMTA and adjacent businesses to examine methods to improve pedestrian conditions along Federal Street, predominantly along the west side of the building, is recommended below. Measures could include wider sidewalks, pedestrian bulb outs, and signalized pedestrian crossing.

[865] Field observation was made by CHS on Wednesday July 15, 2015 between 1:00 p.m. and 3:00 p.m.
[866] Field observation was made by CHS on Thursday July 16, 2015 between 1:00 p.m. and 3:00 p.m.

Bicycle

The AAU postsecondary educational institutional use at ES-30 generates 13 bicycle trips during the PM peak hour, five trips in the inbound direction and eight trips in the outbound direction. Bicycle Route 11 is a Class III bike route that runs along Second Street and provides direct access to the site via Federal Street. Route 11 also provides direct access to 2295 Taylor Street (ES-2). Route 11 connects to Route 2 to the north, which runs along North Point Street, and to AT&T Park to the south. There are a total of four bicycle racks provided in the basement for a total of 36 Class II bicycle parking spaces.[867, 868] The SFMTA has proposed the installation of cycle tracks along Second Street; this would involve significant improvements to bicycle amenities and safety. Future bicycle volumes along Second Street could increase considerably. The site's 16 PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area.

This site generates a bicycle parking demand of approximately 19 spaces, which is generally accommodated by the existing 36 bicycle parking spaces.[869] Given the location of the bicycle parking spaces (in the basement), a recommended Condition of Approval is suggested to relocate the bicycle parking spaces to a more accessible location. No bicycle parking is required for this site under the Planning Code.

Loading

The AAU postsecondary educational institutional use at ES-30 generates approximately ten daily truck trips, which equates to a loading demand of less than one (0.5 trips) in an average hour and (0.6 trips) during the peak demand hour. The AAU building has two off-street loading spaces in the loading dock, which are often used to store dumpsters and technician vans. Vans are moved to accommodate loading activities when needed. There are no on-street freight loading (yellow) zones in the immediate vicinity of the site; the nearest is located on the north side of Bryant Street, west of Second Street, approximately 700 feet northwest of the site.

Field observations of on- and off-street commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU-related freight/delivery vehicles or related activities occurred at the building site or within the available curb spaces along Second Street or Delancey Street during the observation period. General commercial activity in the area is related to retail and industrial uses along Second Street. On-street parking spaces in the vicinity of this AAU site experience moderate to high parking utilization during the midday period. It is likely that the infrequent commercial deliveries to the site use the off-street loading dock on site or on-street parking spaces along Second Street, when available, to make a delivery. Based on the anticipated demand at ES-30 (less than one delivery during the average or peak hour), the two off-street loading spaces meet this demand.

---

[867] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[868] This building also includes two bicycle racks (approximately 14 spaces) in the basement parking lot, which is designated for Avaya, Inc and is not used by AAU.

[869] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

As indicated above under the Shuttle discussion, relocating the shuttle zone to an alternate location, is recommended. Based on the current Route G schedule, two shuttle buses per hour would serve the site. This amount of traffic should not substantially conflict with commercial loading activity. However, if the recommended Condition of Approval causes the shuttle zone to be located on the west end of Federal Street, AAU should manage the AAU deliveries to ES-30 to avoid the peak shuttle hours, reducing the potential conflicts between shuttle operations and commercial delivery traffic.

Garbage collection at the site occurs on the west side of the building on Federal Street, next to the driveway that leads to the loading dock. Trash receptacles are placed along the sidewalk at designated areas. Garbage collection occurs three times a week in the late night hours.

Parking

The AAU postsecondary educational institutional use at ES-30 generates a parking demand of 33 parking spaces (four spaces by faculty/staff and 29 spaces by commuter students). The site has 37 off-street parking spaces in the basement and sub-basement levels. Twenty-eight of the parking spaces are leased to an adjacent business (i.e., 51 Federal Street Associates), and nine parking spaces are used by faculty and staff. The off-street parking facility was observed to be full during the weekday midday period. An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

Curb spaces bordering the site generally consist of no parking zones along Federal Street, DeBoom Street, and Rincon Alley, time-limited (2-hour) metered parking along Second Street and unmetered parking along Delancey Street. Table 86, 58-60 Street – On-Street Parking Supply and Occupancy (Midday Peak)**,** summarizes on-street parking supply and weekday midday occupancy for streets near ES-30. There are a total of 36 on-street parking spaces surrounding the site. During the survey period, parking occupancy was generally full, averaging about 83 percent between 1:00 p.m. and 3:00 p.m.

Given the limited amount of on-street parking, the locations of off-street parking facilities within a two-block radius were examined. Table 87, 58-60 Federal Street – Off-Street Parking Supply**,** lists ten public off-street parking facilities with a total of 1,006 parking spaces near the site. Parking occupancy at off-street parking facilities was not conducted.

Some of the 33 parking space demand related to the postsecondary educational institutional use at ES-30 is able to be met on-site and with on- or off-street parking facilities. However, while faculty and staff have access to the on-site parking spaces if they desire to pay for it, as indicated above, only a portion of the 37 on-site spaces are reserved for AAU use. A recommended Condition of Approval applicable to all AAU existing sites, for AAU to implement Transportation Demand Management strategies, is summarized in Section 3.4.5 (p. 3-28) and detailed in Appendix TDM at the end of this Memorandum; this Condition of Approval is intended to reduce staff and faculty vehicle trips and would also reduce parking demand.

Table 86. 58-60 Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Federal St	2nd St	Federal St	North	N/P	0	N/A
			South	N/P	0	0%
DeBoom St	2nd St	DeBoom St	North	N/P	0	0%
			South	N/P	0	0%
2nd St	Bryant St	Federal St	East	7	6	86%
2nd St	Federal St	DeBoom St	East	3	3	100%
2nd St	DeBoom St	Brannan St	East	5	1	20%
Rincon Alley	Bryant St	Federal St	East	N/P	0	0%
			West	N/P	0	0%
Federal St	Delancey St	Federal St	North	N/P	0	0%
			South	N/P	0	0%
Delancey St	Federal St	Brannan St	West	21	20	95%
Total				**36**	**30**	**83%**

Note: N/P indicates No Parking Zone.

Source: CHS Consulting Group, 2015.

Table 87. 58-60 Federal Street – Off-Street Parking Supply

Address	Type	Capacity
475 Brannan St	Garage	200
470 Brannan St	Garage	112
178 Townsend St	Garage	80
345 Brannan St	Lot	99
599 2nd Street	Lot	40
148 Townsend St	Garage	75
680 2nd St	Garage	50
250 Brannan St	Garage	170
136 Townsend St	Garage	110
270 Brannan St	Lot	70
Total		**1,006**

Source: SF Park, 2011; CHS Consulting Group, 2015.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately one mile east of the site. From the station, vehicles are able to access the AAU site via Folsom and Second streets and would be able to park along Federal Street.

Existing Constraints and Proposed Improvements

Based on the above discussion, constraints on the AAU use of ES-30 include a potential shuttle deficiency, a lack of designated shuttle stop, pedestrian volumes, and the location of bicycle parking available at the site. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-30: TR-1, Shuttle Demand and Capacity. AAU shall assess, adjust, and monitor the shuttle bus capacity for Shuttle Route G serving 58-60 Federal Street, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-30: TR-2, Shuttle Stop. AAU shall work with SFMTA to establish an alternate shuttle bus stop, such as near the intersection of Federal and Rincon streets, to serve the 58-60 Federal Street building, taking into account possible operational and safety conditions.

Recommended Condition of Approval, ES-30: TR-3, AAU Pedestrian Volumes. AAU shall work with SFMTA and adjacent businesses to examine methods to improve pedestrian conditions along Federal Street, predominantly along the west side of the building. Measures could include wider sidewalks, pedestrian bulb outs, and signalized pedestrian crossing.

Recommended Condition of Approval, ES-30: TR-4, Class II Bicycle Parking. AAU reports the presence of four bicycle racks (36 Class II bicycle parking spaces) in the basement of the building. AAU shall relocate these racks (36 Class II spaces) to the ground floor in a more convenient location and add signage to direct students to bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

<u>Noise</u>

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 58–60 Federal Street site (ES-30) is located in the middle of Federal Street between Second and Delancey streets in the South Beach neighborhood. AAU's institutional uses at ES-30 are composed of classroom, labs/studios, offices, an art store, and student and faculty lounges. AAU shuttle route G serves ES-30. According to the San Francisco Transportation Noise Map,[870] the existing traffic noise level near ES-30 from vehicular traffic along Federal Street and Second Street, as well as the

[870] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

nearby Bay Bridge, was approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU operations at ES-30 have resulted in the installation of one rooftop condenser unit and seven exhaust fans. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[871] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when the building was occupied by AAU, and remains compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-30 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment, or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-30 would not have exceeded the standards established by the City for effects on sensitive receptors near ES-30.

Vehicular traffic noise at ES-30 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 740 trips per day.[872] According to the San Francisco Transportation Noise Map,[873] the existing traffic noise level near ES-30 from vehicular traffic along Federal Street, Second Street, and the Bay Bridge was approximately 74 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-30 by AAU contribute approximately 52 dBA L_{dn} to local traffic noise levels. When the ES-30 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-30 has not substantially increased vehicular traffic noise near the site.

---

[871] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.
[872] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
[873] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, offices, an art store, and student and faculty lounges) at ES-30, including mobile- and area-source emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2005, when the AAU occupied the building. Area sources were estimated based on a 99,552-square-foot "Junior College" land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of 740 round trips per day. There is a boiler and generator at ES-30. However, they were installed prior to AAU occupation of ES-30 and were not included in the air quality analysis. Table 88 presents the estimated long-term operational emissions of reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter 2.5 micrometers in diameter ($PM_{2.5}$) or 2.5 to 10.0 micrometers in diameter (PM_{10}) from ES-30, which are all shown to be below the Bay Area Air Quality Management District's (BAAQMD's) daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-30 is not one of those sites; therefore, AAU occupation of ES-30 has not resulted in increased health risks for nearby sensitive receptors.

Table 88. 58–60 Federal Street (ES-30) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	2.76	<0.01	<0.01	<0.01	0.50	<0.01	<0.01	<0.01
Energy	0.08	0.73	0.06	0.06	0.01	0.13	0.01	0.01
Mobile	7.06	13.25	3.91	1.33	1.24	2.48	0.68	<0.01
Total Emissions	9.90	13.97	3.96	1.39	1.76	2.61	0.69	0.25
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

<u>Greenhouse Gas Emissions</u>

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-30 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-30 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-30: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

<u>Wind and Shadow</u>

The tenant improvements at ES-30 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational

facilities, or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-30.

Recreation

As shown on Figure 4, p. 3-63, 58-60 Federal Street (ES-30) is located within 0.25 mile of two San Francisco Recreation and Park Department (RPD) facilities: South Park and the Brannan Street Wharf. South Park, located between Third and Second streets on South Park Avenue, features picnic tables, benches, fenced play areas with sand pits and climbing structures, as well as a hummingbird garden.[874] The Brannan Street Wharf, along The Embarcadero at the terminus of Brannan Street, features a lawn area, a waterside walkway with seating, a shade structure, and a small-craft floating dock for kayaks and recreational water vessels.[875] In addition, users would also be able to access the San Francisco Bay Trail for walking, jogging, or bicycling.

As described above in Population and Housing on p. 4-572, the capacity of ES-30 is 636 occupants. The change in use from offices to educational services at ES-30 does not represent a substantial change in the daytime population of the area. The change in population, if any, is considered a minimal increase compared to the service population for the South Park and Brannan Street Wharf facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-30 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, because it has been concluded that sufficient water is available to serve existing customers and planned future uses.[876] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-30. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply has occurred from the change in use.

---

[874] San Francisco Recreation and Parks, South Park. Available online at: http://sfrecpark.org/destination/south-park/ Accessed January 2016.

[875] Port of San Francisco, Brannan Street Wharf. Available online at: http://sfport.com/index.aspx?page=262. Accessed January 2016.

[876] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[877] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-30 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[878] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[879] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-30 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[880] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

---

[877] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[878] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[879] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[880] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

58–60 Federal Street has a capacity of 636 occupants (595 students and 41 faculty and staff). The change in use from office to educational services would not represent a substantial change in the daytime population of the area, because the population of an office building would be similar to that of an educational services use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augment the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change of use at ES-30.

Fire and Emergency Services

ES-30 is located within 2,500 feet of Fire Station No. 8 (36 Bluxome Street) and Fire Station No. 1 (935 Folsom Street). Fire Station No. 8 consists of a single fire engine and truck.[881] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to in under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to in under 4:48 minutes. In 2011, Fire Station No. 8 responded to 857 non-emergency calls with an average response time of 9:51 minutes, with 90 percent of non-emergency calls responded to in under 16:56 minutes. Fire Station No. 8 responded to 2,455 emergency calls with an average response time of 3:38 minutes, with 90 percent of emergency calls responded to in under 4:55 minutes.[882]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within 5 minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-30 meet the Citywide emergency transport goals.

As described above on p. 4-572, the change in use from offices to educational services would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed life safety upgrades and installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measureable changes in response times have been associated with the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change of use at ES-30.

[881] San Francisco Fire Department, Annual Report 2012-2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[882] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

Libraries

The nearest public library to ES-30 is the newly constructed Mission Bay Library, which is 7,500 square feet and serves a population of 14,163. The Mission Bay Library had 128,536 visits in 2014.[883] Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on p. 4-572, the change in use from office to educational services would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Mission Bay and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change of use at ES-30.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as an educational services use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-30.

Biological Resources

ES-30 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor is there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plan applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-30. ES-30 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-30.

Geology and Soils

ES-30 is underlain by Quaternary dune sands.[884] The dune sands of San Francisco once formed an extensive coastal system, underlying approximately one-third of the City. The dune sand is described

[883] San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.
[884] Geologica, Inc., Phase I Environmental Site Assessment for 60 Federal Street, March 2005.

as clean, well sorted, fine to medium grained sand. The dune sand is typically highly permeable. Within San Francisco, the dune sand reaches thicknesses of up to 150 feet and is underlain by highly fractured bedrock. At the property and immediate vicinity, atop the dune sand is likely fill that could include debris from the 1906 Earthquake and Fire. Groundwater is expected to be 20–25 feet below ground surface and flow toward the east.[885] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-28 would be very strong during a magnitude 7.2 earthquake originating from the San Andreas Fault and strong during a 6.5 magnitude earthquake origination from the Hayward Fault.[886, 887] ES-30 is not located within a liquefaction zone.[888] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-30 is steel-reinforced concrete construction and underwent a seismic upgrade in 2000 by a previous owner.[889] In addition, AAU has provided seismic restraints in two rooms to enhance earthquake safety within the building. Although the building could still be vulnerable during an earthquake, the building alterations carried out after the change in use from office to educational services would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-30 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage and security cameras). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

---

[885] Geologica, Inc., Phase I Environmental Site Assessment for 60 Federal Street, March 2005.

[886] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[887] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[888] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[889] Permit #200002262886 (seismic upgrade).

ES-30 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). The site is not within an area susceptible to sea level rise forecasted by the SFPUC through the year 2100.[890] ES-30 is not located in an area that is vulnerable to tsunami risk.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-30.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-30 did not identify the presence of underground storage tanks or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes. [891] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; therefore, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1912, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[892] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-30 for classrooms, labs/studios, offices, an art store, and student and faculty lounges. Hazardous materials that are used, stored, and disposed of at ES-30 include polishers, ink additives, solvents, lubricants, cleaners, acids, emulsion removers, paints, glues, rust remover, and thinning oils associated with the educational services use.[893] These products are stored in hazardous materials cabinets; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[894] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. ES-30 is enrolled in the SFDPH Hazardous Materials Unified Program Agency (HMUPA) Program.[895] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan (HMBP). Article 22 authorizes the SFDPH to implement and enforce

[890] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[891] Geologica, Inc., Phase I Environmental Site Assessment for 60 Federal Street, March 2005.
[892] Geologica, Inc., Phase I Environmental Site Assessment for 60 Federal Street, March 2005.
[893] Academy of Art, Hazardous Materials Inventory List for 60 Federal Street, August 6, 2015.
[894] Academy of Art, Hazardous Materials Inventory List for 60 Federal Street, August 6, 2015.
[895] Permit numbers: EPA# CAR000161760; CERS# 10062190.

requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-30 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-30 to ensure compliance with applicable regulations. Because the previous use of the building was offices, hazardous materials use has likely increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral recovery sites as a result of the change in use of ES-30.

Tenant improvements at ES-30 associated with the conversion of office space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-589. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[896] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-30, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-30. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-30 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-30 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-30 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[897] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-30 has had no substantial effects on agriculture or forest resources.

---

[896] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 58-60 Federal Street, March 4, 2016.

[897] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.21. 601 Brannan Street (ES-31)

Property Information

The 601 Brannan Street existing site (ES-31) is a two-story, 73,666-square-foot building constructed in 1924, located on Brannan Street at 5th Street, in the South of Market (SoMa) neighborhood (Photograph 132–135). Figure 18, ES-31: 601 Brannan St – Existing Condition, in Appendix TDM, shows the location of this site at the corner of Brannan and 5th streets. The site is Lot 0132 in Assessor's Block 3785. The building has a capacity of 575 occupants (514 students, 61 faculty and staff).

601 Brannan Street originally consisted of two separate structures (one made of brick and the other of metal), which were joined and renovated for office use.[898] AAU occupied ES-31 in 2007 and in 2010 used it for classrooms, a library, labs/studios, and a furniture and model shop. AAU currently uses the building for classrooms, a satellite library, and labs/art studios. Outdoor recreation facilities are also provided at 601 Brannan. In 2010 these facilities included a basketball court and batting cages; current facilities include a basketball court and batting cages. Three AAU shuttle bus routes (G, H, and I) use the 40-foot-long "No Parking Shuttle Bus Zone" located along the west side of 5th Street, immediately south of the Muni bus stop for the bus lines 30-Stockton and 45-Union/Stockton. The building includes a 31-space surface parking lot along the east side of the property, divided into a front parking lot with 22 parking spaces accessed from Brannan Street and a rear parking lot with nine parking spaces accessed from Bluxome Street. The site has a 24-foot-wide off-street loading area accessed from Bluxome Street, which accommodates two commercial trucks at any given time.

The site is zoned SALI (Service/Arts/Light Industrial) and is within the Western SoMa Special Use District. The district is designed to protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, and light industrial activities. Educational services are not permitted in SALI Zoning District. The height and bulk district is 40/55-X. ES-31 is located within the Central South of Market (SoMa), Western SoMa and South of Market Planning Areas.

Tenant Improvements and Renovations

AAU reroofed the building in 2009 and installed a fire alarm, made life safety upgrades, and installed furnaces and performed duct work on the first floor in 2010. AAU remodeled interior space to include a café in 2011. AAU painted an AAU logo on the side of the building without a building permit in 2011, and removed signs exept those at ground level in 2013. [899] AAU installed a basketball court, batting cages, and an AAU shuttle waiting area at some unknown date without building permits.

[898] *2011 IMP*. p. 76.
[899] Building Permits obtained for the improvements and renovations at ES-31are: BPA #200903174310 (reroofing), #201012166828 (fire alarm), #201008098349 (life safety upgrade), #201011024182 (furnaces and duct work on first floor), #201101128258 (interior remodel to café), #201006084046 (painted wall, permit never issued), and #201301248670 (sign removal).

Photograph 132. 601 Brannan Street (ES-31).

Photograph 133. Rear of ES-31, mid-block Bluxome Street, facing northeast.

Photograph 134. Recreation yard at ES-31.

Photograph 135. Mid-block Brannan Street, facing west toward the Flower Mart.

Required Project Approvals

The 601 Brannan Street existing site (ES-31) would require a conditional use (CU) authorization under San Francisco Planning Code (Planning Code) Section 823(c) and a building permit under Planning Code Section 171 to change the use from office to educational services within a SALI Zoning District. ES-31 also requires a legislative amendment to Planning Code Section 846.32 to permit educational services within the SALI Zoning District, upon expiration of the grace period for legalization of non-conforming uses on April 27, 2016.

Plans and Policies and Land Use

Located within the South of Market (SoMa) neighborhood, ES-31 is bounded by 5th Street to the east, 6th Street to the west, Brannan Street to the north, and Bluxome Street to the south. The areas surrounding ES-33 include public, residential, office, industrial, and commercial uses. To the south of ES-33 are office, light industrial, retail/restaurant commercial, and residential uses along Bluxome Street. Buildings surrounding the subject block are typically one to five stories tall. ES-31, originally built in 1924, originally consisted of two separate structures which were previously joined and renovated for office use. The site contains a ground-level open space, which is currently used for an outdoor basketball court, a rest area with tables and chairs, a shuttle waiting shelter, and a parking area.

Brannan Street runs east to west for between 5th Street and 6th streets. Two-hour parallel parking spaces are provided along Brannan Street and 5th Street, and 90-degree metered parking spaces along the south side of Bluxome Street. An AAU parking lot is located to the west of the ES-31 building. Brannan Street is a two-way east-west road with two lanes in each direction near ES-31. Bluxome Street runs parallel to Brannan Street, but is skinnier and has one lane in each direction that may require yielding to oncoming traffic.

Along the northern side of Brannan Street are light industrial and commercial uses associated with the San Francisco Flower Mart as well as Bechelli's Flower Market Café on the northeast corner of Brannan and 5th streets. To the east resides the Bay Club tennis facility, a private recreational facility, located on 5th Street between Brannan and Bluxome streets. North of the Bay Club on the northeast corner of 5th Street and Brannan Street is a doggy day care facility, and a 5-story residential complex is located on the southeast corner of 5th Street and Bluxome Street. To the west is an above-grade Interstate-280 off-ramp running northeast to 6th Street, where it descends to ground level at Brannan Street. Underneath the off-ramp is an SFPD vehicle yard.

Buildings on the subject block are typically of a singular use throughout the buildings (in contrast to other neighborhoods in which retail, service, or office uses are located on the ground floor with office or residential uses on the upper floors). West of ES-31 along Brannan Street is a bicycle shop, office space, and a residential complex. South of ES-31 on Bluxome Street is an industrial building, an office building and residential complex on Brannan Street.

Zoning near ES-31 is Service/Arts/Light Industrial (SALI). The SALI Zoning District largely comprises low-scale buildings with production, distribution, and repair uses. The district is designed to protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, and light industrial activities, with an emphasis on preserving and expanding arts activities.[900] The property is also located within the Western SoMa Special Use District, Western SoMa Community Plan, and SoMa Area Plan. The Western SoMa Special Use District's goals are primarily to mitigate neighborhood impacts from new development projects.[901] The Western SoMa Community Plan's goal is to maintain the mixed-use character, while encouraging new residential and commercial uses. The SoMa Area Plan guides the locations, intensity, and character of new and expanded businesses and residential activity in SoMa. ES-31 is also in the proposed Central SoMa Area Plan, which attempts to support transit-oriented growth, shape the area's urban form, maintain vibrant economic and physical diversity, and support growth with improved streets and open space. The use of ES-31 as a postsecondary educational institution would not be considered consistent with the Western SoMa Area Plan, and Western SoMa Special Use District because educational services within the SALI Zoning District would not be permitted upon expiration of the grace period for legalization of non-conforming uses on April 27, 2016. Height and bulk districts along either side of Brannan Street between 5th and 6th streets are 40/55-X.

As noted above, the use of ES-31 has been changed from office to educational services use with classrooms, lab/studios, a library, recreational facilities, and a café. The change in use of the existing structure involved exterior renovations, such as reroofing the building, painting an AAU logo, installing a basketball court, batting cages, and an AAU shuttle waiting area. On the interior, minor alterations are described above under Tenant Improvements and Renovations.

The change in use of the site from an office use to an educational services use did not substantially affect the character of the building and surrounding uses were maintained as a mixed-use neighborhood. The change in use would not physically divide an established community. The educational use does not change the scale or neighborhood character, as only minor exterior alterations to the building have occurred. However, the change in use could increase AAU's presence in the area, as the institution occupies two buildings to the south of ES-31 at 460 and 466 Townsend Street.

Additionally, the change in use conflicts with the policies of the SALI District, which is designed to protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, and light industrial activities, with an emphasis on preserving and expanding arts activities. Educational services are not allowed within a SALI District. ES-31 will require a legislative amendment to the Planning Code Section 846 and a building permit under Planning Code Section 171. ES-31 is also in the Western SoMa Area Plan, but there are no notable conflicts with the plan's goals. Therefore the ES-31 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-31 would not result in any substantial effects on the environment.

---

900 Planning Code Section 846.
901 *Planning Principles of the West SoMa Citizens Planning Task Force*, Adopted August 23, 2006. Available at http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=7210. Accessed on October 23, 2015.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-31 is 575 occupants (514 students and 61 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. Some of the employment and student growth generated by the change in use may indirectly result in new residents of San Francisco. Occupation by AAU may have resulted in displacement of employees; however, office space was likely found elsewhere. Conservatively presuming that ES-31 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population of San Francisco (829,072).[902]

The change in use at ES-31 from office to educational services would have minimally changed the daytime population because the building, as an office, likely had a comparable capacity. Therefore, no substantial effect on population has occurred from the change in use at ES-30.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-31 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from office to educational services at ES-31 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-31 did not result in the displacement of housing because this site was previously used as office.

Aesthetics

ES-31 is located in the SoMa neighborhood. The building is two stories and originally consisted of two separate structures, which were joined together by a previous tenant. The original two buildings are visibly different, with the eastern building consisting of a brick façade and the western building consisting of a concrete façade. Both structures appear to be consistent with the converted post-industrial space that is common in the neighborhood. Both buildings have no setback to the sidewalk. Street trees are located along Brannan Street and 5th Street, minimizing building massing and shading the sidewalks. The eastern building has large windows facing the street on both frontages, while the western building is devoid of windows on the southern portion of the structure. A large, green mural with flowers and vegetation and the words “spring snow” is painted on the eastern façade of the western building, facing the parking lot, recreation areas, and adjacent commercial building. An AAU logo is painted on the northeastern corner of the western building.

[902] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

The buildings along Brannan Street are mainly two- to four-story light industrial, commercial, and residential buildings that are converted warehouse spaces. The eastern portion of Brannan Street, between 5th and 6th streets, is visually characterized by the continuous façade of the back of the Flower Mart and a newer four-story residential building. Surface parking lots and commercial and light-industrial uses characterize the eastern portion of Brannan Street. The three-story Bay Club tennis facility and parking structure is located on the southeastern corner of 5th and Brannan streets. A converted industrial space at the northeastern corner of the Brannan and 5th streets serves as a doggy day care facility. Due to the off- and on-ramp to I-280, the Caltrain station, and other active uses, Brannan Street and 5th Street are heavily traveled roadways for vehicles, bikes, and pedestrians.

View corridors in the vicinity are relatively unrestricted compared to other areas of San Francisco due to the flat topography and low-rise buildings. ES-31 is bounded by Bluxome Street to the south, Brannan Street to the north, a parking lot and commercial building to the west, and 5th Street to the east.

The change in use at ES-31 has caused some changes to the visual environment of the area. The large mural and AAU logo on the western side of the building are highly visible driving eastbound on Brannan Street. The addition of recreation opportunities (i.e., basketball court and batting cages) are aesthetically different than the primarily commercial, residential, and light industrial spaces that a prevalent in the area. However, these visual changes are consistent with an urban environment in a mixed-use community. The Bay Club, located at the intersection of Brannan and 5th streets, has large logos and “San Francisco Tennis Club” written on all sides of the building. Other murals, billboards, and logos are prevalent in the neighborhood. Therefore, no substantial changes to aesthetics have occurred from the change in use at ES-31.

Cultural and Paleontological Resources

Historic Architectural Resources

601 Brannan Street was evaluated as part of the South of Market Area Historic Resource Survey in 2011. It was found not be a historic architectural resource at that time and thus no Historical Architectural evaluation was performed for ES-31.

Archaeology and Paleontology

Building alterations at ES-31 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-31 is located at the southwest corner of Fifth Street and Brannan Street in the SoMa neighborhood. This site originally consisted of two separate 2-story structures previously used for a furniture warehouse and for auto sales and repair; these structures were joined and converted to office use in 2001. The building has approximately 73,666 gross square feet of AAU postsecondary educational institutional use, comprised of classrooms, labs/studios, a satellite library, and a café, plus outdoor recreational uses. On a typical day there are approximately 514 students and 61 faculty/staff members at the site.

The building includes a 31-space surface parking lot along the east side of the property, divided into a front parking lot with 22 parking spaces accessed from Brannan Street and a rear parking lot with nine parking spaces accessed from Bluxome Street. The front parking lot is used for AAU parking and commercial loading as well as for outdoor lighting classes. The rear parking lot is used for parking and as a recreational area with a batting cage and a basketball court. A 30-foot-wide curb cut and loading dock is located on Bluxome Street at the rear of the building. There is one main pedestrian entry to the building from Brannan Street near the parking lot and two secondary entrances on Bluxome Street and Fifth Street for fire egress. There are two bicycle racks in the building lobby accessed from the main entry on Brannan Street (10 spaces) and five bicycle racks (50 spaces) in the front parking lot, for a total of 60 bicycle parking spaces. There are no bicycle racks in the brick building along Fifth Street. Three shuttle routes (G, H, and I) use the 40-foot-long shuttle stop on the west side of Fifth Street, immediately south of the Muni bus stop, 280 feet from the main entry.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at this AAU site generates approximately 336 person trips (129 inbound trips and 207 outbound trips) and 54 vehicle trips (20 inbound trip and 34 outbound trips) during the weekday PM peak hour.

Traffic

ES-31 is bounded by Brannan Street, Bluxome Street, and Fifth Street. Land uses in the area include office, industrial, retail, and residential uses. ES-31 is located one block northwest from the Fourth and Townsend intersection, which is the location of the Caltrain Station, the Muni Metro and several Muni bus and light rail routes. The Muni bus route 47-Van Ness Avenue travels along Fifth Street with a bus stop at the southwest corner of the Brannan and Fifth streets intersection. Routes 30-Stockton and 45-Union/Stockton are rerouted to Fifth Street due the construction of the Central Subway. Fifth Street is also a designated bicycle route, with sharrow striping in both northbound and southbound directions. AAU shuttle bus Routes H and I stop at this location, and an additional route (G) was added in the fall semester of 2011. SFMTA has a plan to create bicycle lanes along 5th Street.

The existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions, are discussed below. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *the Better Streets Plan*.[903,904] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[905]

Brannan Street is an east-west street/commercial throughway that runs between Dore Street and The Embarcadero. In the vicinity of the AAU site, it has two travel lanes in each direction and metered parking on both sides of the street. Traffic volumes along Brannan Street are generally

[903] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[904] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[905] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

moderate, except during the PM peak period, when it can be heavy. The *San Francisco General Plan* classifies Brannan Street between Fifth and Sixth streets as a Major Arterial in the CMP Network.

Bluxome Street is an east-west street that runs between Sixth and Fourth streets. In the vicinity of ES-31, it has one travel lane in each direction and metered perpendicular parking on the south side of the street. Bluxome Street has low traffic volumes, as it serves mostly residential and office uses along the two-block local street.

Fifth Street is a north-south street/commercial throughway that runs between Market Street and Townsend Street. In the vicinity of the AAU site, it has two travel lanes in each direction and metered parking on both sides of the street. Fifth Street dead ends at King Street, so traffic volume is relatively low to moderate at this location. The *San Francisco General Plan* classifies Fifth Street as a Major Arterial in the CMP Network. Fifth Street is also designated as a High Injury Corridor in the City's Vision Zero network.

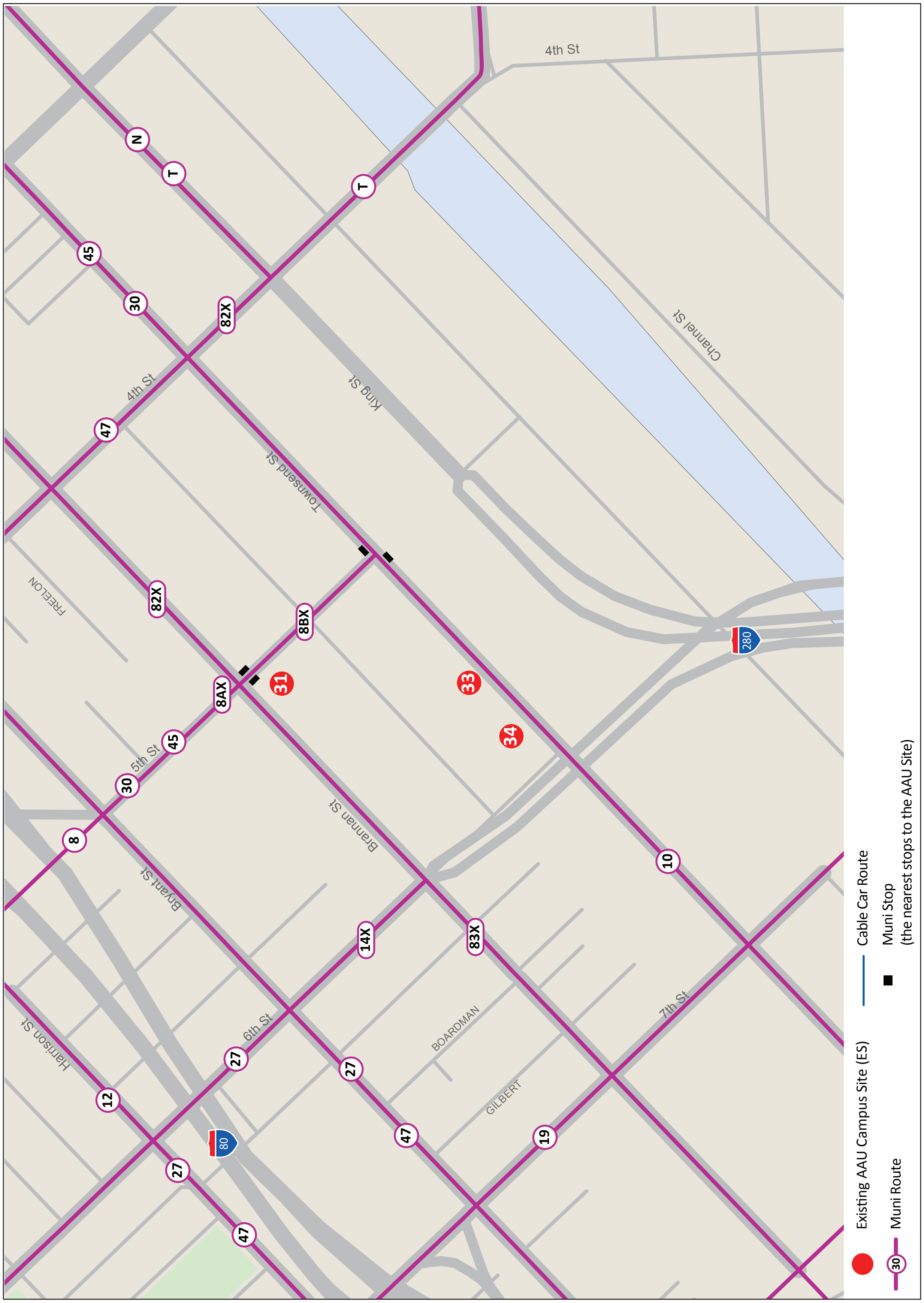
The postsecondary educational institutional use at ES-31 adds 64 additional vehicle trips) to adjacent streets during the PM peak hour (23 inbound and 41 outbound). Based on this level of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-31. Shuttle and parking lot circulation are further discussed below.

Transit

The AAU postsecondary educational institutional use at ES-31 generates approximately 170 transit trips during the PM peak hour, 64 trips in the inbound direction and 106 trips in the outbound direction. The site is one block (1,500 feet) west of the Caltrain Station. ES-31 is served by Muni bus lines 30-Stockton, 45-Union/Stockton, and 47-Van Ness, which operate along Fifth Street, and 82X-Levi Plaza, which travels along Brannan Street, east of Fourth Street.[906] These routes provide further connections to Muni rail and bus service on Market Street. The nearest bus stops to ES-31 are located on the southeast and southwest side of the Brannan Street/Fifth Street intersection. These bus stops do not have shelters or service information (see Figure 10**,** Muni Transit Network for ES-31, ES-33, and ES-34). The nearest stop for the 30-Stockton and 45-Union/Stockton that travel to Market Street is on Townsend Street east of Fourth Street; these stops have shelter and service information.

Table 89, 601 Brannan Street (ES-31) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour**,** presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. While one bus route (45-Union/Stockton) approaches the standard capacity utilization, all four routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

[906] Muni lines 30-Stockton and 45–Union/Stockton typically run along Fourth Street in the inbound direction. Due to the construction of the Central Subway Project, they have been temporarily relocated to Fifth Street.



AAU EXISTING SITES TECHNICAL MEMORANDUM

FIGURE 10: MUNI TRANSIT NETWORK FOR ES-31, ES-33, AND ES-34

Table 89. 601 Brannan Street (ES-31) – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus, and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union/ Stockton	Lyon and Greenwich to Caltrain Depot via Union and 3rd	8	12	12	260	Stockton St/ Sutter St	82%
47 – Van Ness	Caltrain Depot to Beach, Townsend, Mission, Van Ness, and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%
82 – Levi Plaza Express	Caltrain Depot to Levi's Plaza via Sansome, Main, Battery, and Beale	20	N/A	15	92	Beale St/ Howard St	36%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed to routes in the vicinity of ES-31:

- Route 30-Stockton would increase frequency east of Van Ness Avenue from 4 to 3.5 minutes.
- The Van Ness Corridor Transit Improvement Project would implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which would reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent. Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The 170 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-31 are distributed to several routes and are accommodated on existing transit services based on Muni transit capacity utilization and service. The AAU shuttle stop is located on the west side of Fifth Street adjacent and just south of a Muni bus stop for the 30-Stockton and 45-Union/Stockton.

AAU shuttle service to the site (Routes G, H, and I) occurs approximately every seven minutes and bus service for the 30-Stockton and 45-Union/Stockton routes occurs at a combined frequency of every two to three minutes. Although shuttles and buses arrive at the same time, the 40-foot-long shuttle stop is of sufficient size, as further discussed below, to contain these three routes and therefore has not substantially conflicted with the operation of adjacent southbound transit vehicles.

Shuttle

The AAU postsecondary educational institutional use at ES-31 generates approximately 45 shuttle riders during the PM peak hour, 20 riders in the inbound direction and 25 riders in the outbound direction. Shuttle demand is likely higher at different times of the day for this site, depending on class scheduling. In 2010, the site was served by two shuttle bus routes, Routes H and I, both of which operated every 15 minutes. The total seating capacity at that time was 494 seats in the PM peak hour. Routes H and I operated at 63 and 78 percent capacity, respectively, at the MLP during the PM peak hour in 2010. During the shuttle peak hour, Routes H and I operated at 126 and 130 percent capacity, respectively, at the MLP. MLPs occur at 466 Townsend Street and on Route H and at 79 New Montgomery on Route I. As of spring 2015, three shuttle bus routes (G, H, and I) operate with 30-, 20-, and 20-minute headways, respectively, resulting in a total capacity of 300 seats during the PM peak hour, a 40 percent reduction of service.

Based on the current shuttle capacity serving the site, the 45 additional shuttle riders generated at the site during the PM peak hour are likely accommodated on Routes G, H, and I. However, since these routes also serve other residential and institutional locations, a Condition of Approval to assess and monitor shuttle bus ridership and capacity utilization of Routes G, H, and I is recommended below. If additional shuttle capacity is needed to serve the site, increasing shuttle frequencies or shuttle bus size are examples of how this could be achieved.

The three shuttle bus routes (G, H, and I) use the 40-foot-long “No Parking Shuttle Bus Zone” located along the west side of Fifth Street, immediately south of the Muni bus stop for the bus lines 30-Stockton and 45-Union/Stockton. The hours of operation for the shuttle bus zone are between 7:00 a.m. and 12:00 a.m. Monday through Saturday and from 10:00 a.m. to 12:00 a.m. on Sunday. Based on the frequency of the G, H, and I routes, one to two shuttles are expected to use the zone at the same time, and therefore the 40-foot length is sufficient for these three routes. Fifth Street is a designated bicycle route (Route 19). No substantial conflict between AAU shuttle buses and bicycle traffic was noted due to relatively low volumes of AAU shuttle buses (approximately eight per hour). The 30-Stockton, 45-Union/Stockton, and 47-Van Ness bus lines operate along Fifth Street. No substantial conflicts between AAU shuttle buses and Muni vehicles were noted during observation because shuttle buses use the designated shuttle bus zone and no double parking occurred.[907]

Since Fifth Street is both a bicycle and transit route, and the site has an off-street parking lot adjacent to its main entry, a recommended Condition of Approval is suggested to relocate the shuttle stop on the site, taking into account possible operational and safety considerations. The parking lot accessed from Brannan Street has two curb cuts and driveways, allowing for circulation of AAU shuttle buses. The on-street white zone could then be returned to public parking spaces.

Pedestrian

The AAU postsecondary educational institutional use at ES-31 generates approximately 263 pedestrian trips during the PM peak hour, 48 walking, 170 transit, and 45 shuttle trips. Fifth Street is designated as a High Injury Corridor in the City’s Vision Zero network. Intersections near the site have well-defined crosswalk markings, pavement delineations, and traffic signals. The Brannan

[907] Field observation was made by CHS on Thursday, July 16, 2015, between 1:00 p.m. and 3:00 p.m.

Street/5th Street intersection has pedestrian crossing signal heads. Sidewalks along Brannan Street and Fifth Street are approximately 10 feet wide. There are two curb cuts with driveways on the south side of Brannan Street, and two curb cuts on the north side of Bluxome Street. There is one main pedestrian entry to the building from Brannan Street near the parking lot and two secondary entrances along Bluxome Street and Fifth Street for fire egress.

Pedestrian volumes were observed to be generally light to medium in the vicinity of the site. Pedestrians were observed to move freely on the sidewalk and crosswalk areas. There were no indications of overcrowding within the sidewalk areas, nor a considerable amount of pedestrians standing outside of the AAU site. The gates at the driveways on Bluxome Street were closed during the observation period, and no instances of pedestrian-vehicle conflicts at the driveways (curb cuts) or crosswalk locations were observed.[908] The estimated 263 pedestrian trips at ES-31 are able to be accommodated on the adjacent pedestrian facilities (10-foot-wide sidewalks along Brannan Street).

A recommended Condition of Approval to remove one curb cut (likely the west curb cut) along Bluxome Street is suggested, taking into account possible operational and safety conditions, since this portion of the parking lot is being used as a recreational area, and no more than one curb cut would be required along Bluxome Street. Furthermore, a similar recommended Condition of Approval is suggested to remove the east driveway on Brannan Street near the building entry, unless the shuttle stop is relocated on site.

Bicycle

The AAU postsecondary educational institutional use at ES-31 generates 10 bicycle trips during the PM peak hour, five trips in each direction. Bicycle Route 19 is a Class III bike route that runs along Fifth Street and provides direct access to the site via Brannan Street. Route 19 connects to Route 50 on Market Street to the north and to Route 36 on Townsend Street to the south. There are two bicycle racks (10 spaces) inside the main building in the lobby and five bicycle racks (50 spaces) in the parking lot, for a total of 60 Class II bicycle parking spaces.[909] The parking lot bicycle racks are located in front of and immediately behind the accessible parking spaces, making it inconvenient to accommodate both vehicle and bicycle parking. The site's 10 PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area.

This site generates a bicycle parking demand of approximately 15 spaces, which is generally accommodated in the existing 60 bicycle parking spaces.[910] Given the location of the existing bicycle racks in the parking lot (conflicting with the accessible spaces), a recommended Condition of Approval is suggested to relocate the parking lot bicycle parking spaces to a more accessible location (e.g., in front of the main entry to the building) with better signage. No bicycle parking is required under the Planning Code for this site.

[908] Ibid.
[909] Bicycle parking data was provided by AAU and verified by Planning Department staff.
[910] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

Loading

The AAU postsecondary educational institutional use at ES-31 generates approximately seven daily truck trips, which equates to a loading demand of approximately less than one (0.3 trips) in an average hour or (0.4 trips) during the peak demand hour. The site has a 24-foot-wide off-street loading area accessed from Bluxome Street, which accommodates two commercial trucks at any given time. Additionally, AAU reports smaller commercial deliveries frequently use the front parking lot. There are no on-street freight loading (yellow) spaces adjacent to the site on Brannan Street, Bluxome Street, and Fifth Street.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and occasional AAU-related freight/delivery vehicles or related activities were observed in the north parking lot, but no commercial activities were observed at the rear Bluxome Street off-street loading spaces. General commercial activity in the area is related to commercial deliveries to the nearby retail and industrial uses along Brannan Street and residential uses on Bluxome Street. On-street parking spaces in the vicinity of the AAU site experience low to moderate parking utilization during the midday period. The two off-street loading spaces are sufficient to meet average and peak hour commercial demand. Additionally, the front parking lot would remain available for smaller commercial truck deliveries. The recommended bicycle and shuttle zone improvements would not alter the availability of the front parking lot, but may reduce the number of available parking spaces.

Garbage collection at the site occurs on the north side of Bluxome Street next to the service door in the thru-way between 460 and 466 Townsend streets. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection occurs four times a week in the early morning hours.

Parking

The AAU postsecondary educational institutional use at ES-31 generates a parking demand of 25 parking spaces (four spaces by faculty/staff and 21 spaces by commuter students). The site includes a 31-space parking lot, which is used by faculty and staff. Peak occupancy for the on-site parking facility was observed to be approximately 50 percent during the weekday midday period. An on-street parking survey was conducted along streets adjacent to the site and other nearby AAU sites such as 460 Townsend Street (ES-33) and 466 Townsend Street (ES-34) during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

On-street parking spaces bordering the site and other nearby AAU sites such as 460 Townsend Street (ES-33) and 466 Townsend Street (ES-34) are generally time limited and metered, except for the spaces along Brannan Street and Bluxome Street. Table 90, 601 Brannan Street – On-Street Parking Supply and Occupancy (Midday Peak)**,** summarizes on-street parking supply and weekday midday occupancy for streets near ES-31 and other nearby AAU sites such as 460 Townsend Street (ES-33) and 466 Townsend Street (ES-34). There are a total of 170 on-street parking spaces surrounding these sites. During the survey period, parking occupancy is generally full, averaging about 86 percent between 1:00 p.m. and 3:00 p.m.

Given the limited amount of on-street parking, the locations of off-street parking within the study area, generally bounded by Seventh Street, I-280, Townsend Street, and Third Street, were examined. Table 91 lists eleven public off-street parking facilities with a total of 1,838 parking spaces. Parking occupancy at off-street parking facilities was not observed.

Table 90. 601 Brannan Street – On-Street Parking Supply and Occupancy (Midday Peak)

Street	From	To	Side	Supply	Occupied	% Utilization
Brannan St	6th St	5th St	South	28	16	57%
5th St	Brannan St	Bluxome St	East	4	4	100%
			West	4	4	100%
Bluxome St	6th St	5th St	North	0	0	0%
			South	58	47	81%
6th St	Bluxome St	Townsend St	East	8	8	100%
Townsend St	6th St	5th St	North	20	20	100%
			South	48	48	100%
Total				**170**	**147**	**86%**

Note: Parking utilization above 100 percent indicates double parking or other illegal activity.

Source: CHS Consulting Group, 2015.

Table 91. 601 Brannan Street – Off-Street Parking Supply

Address	Type	Capacity
35 Gilbert St	N/A	80
410 Townsend St	Garage	48
356 Harriet St	Lot	70
580 Brannan St	Lot	146
833 Bryant St	Lot	90
644 Brannan St	Lot	120
801 Bryant St	Lot	150
505 Brannan St[1]	Lot	72
475 Brannan St	Garage	200
470 Brannan St	N/A	112
215 Townsend	Garage	750
Total		**1,838**

Note:
1 The parking lot at 505 Brannan Street closed in early 2016 for construction of a new building.

Source: SF Park, 2011; CHS Consulting Group, 2015.

Some of the 25 parking space demand related to the postsecondary educational institutional use at ES-31 is met with on- or off-street parking facilities. However, these spaces are limited in amount and the AAU use at this building could potentially add to the overall parking demand in the area. Unnecessary driveway curb cuts are recommended for removal. The recommended bicycle and shuttle zone improvements would not alter the availability of the front parking lot, but may reduce the number of available parking spaces in the south parking lot. A recommended Condition of Approval applicable to all AAU existing sites, for AAU to implement Transportation Demand Management strategies, is summarized in Section 3.4.5 (p. 3-28) and detailed in Appendix TDM at the end of this Memorandum; this Condition of Approval is intended to reduce staff and faculty vehicle trips and would also reduce parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately 0.5 mile north of the site. From the station, vehicles are able to access the AAU site via Fifth and Brannan streets and would be able to park on-site or along Brannan Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-31 include a potential shuttle deficiency, shuttle zone located on a bicycle and transit street, multiple driveways that could interfere with the pedestrian environment, and inconvenient bicycle parking locations. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-31: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust and monitor the shuttle bus capacity for its shuttle routes, specifically Routes G, H, and I, potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Recommended Condition of Approval, ES-31: TR-2, Pedestrians and Parking Lot Design. AAU shall remove two of the four driveway curb cuts, the west driveway and curb cut on Bluxome Street and the east driveway and curb cut on Brannan Street, taking into account possible operational and safety considerations.

Recommended Condition of Approval, ES-31: TR-3, Bicycle Parking Relocation. AAU shall relocate the existing bicycle parking spaces to a more convenient location such as in front of the main entrance to the building and add signage to direct students to bicycle parking location, taking into consideration space constraints and operational demands. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Recommended Condition of Approval, ES-31: TR-4, Shuttle Stop Relocation. AAU shall relocate the existing shuttle bus zone from Fifth Street to the existing on-site parking lot accessed from Brannan Street, adjacent to the main building entry, taking into account possible operational and safety considerations, and with the approval of SFMTA, return this area to on-street public parking

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 601 Brannan Street site (ES-31) is located at the southwest corner of 5th Street and Brannan Street in the South of Market neighborhood. This site originally consisted of two separate structures, which were joined for office use and now function as one. Prior to AUU's use of the property in 2007, the building was leased to a now defunct IT company. The building includes approximately 73,666 gross square feet of AAU institutional use, comprising classrooms, labs/studios, a library, a café, and recreational facilities. AAU shuttle routes G, H, and I serve ES-31. According to the San Francisco Transportation Noise Map,[911] the existing traffic noise level near ES-31 from vehicular traffic along 5th Street and Brannan Street and the I-80 freeway ½ block to the north is approximately 74 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-31. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-31 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-31 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-31.

The noise levels generated by student activity and increased shuttle bus operation were compatible with a typical urban environment when the building was occupied by AAU and remain compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-31 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-31 did not exceed the standards established by the City for effects on sensitive receptors near ES-31.

Vehicular traffic noise at ES-31 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 540 trips per day.[912] According to the San Francisco Transportation Noise Map,[913] the existing traffic noise level near ES-31 from vehicular traffic along 5th Street, Brannan Street and the nearby freeway was approximately 74 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-31 by AAU contribute approximately 50.6 dBA L_{dn} to local traffic noise levels. When the ES-31 contribution is added to the mapped existing noise level, the

---

911 San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
912 CHS Consulting Group, 2016. *AAU ESTM Transportation Section Draft #1A*. January 2016.
913 San Francisco Department of Public Health, 2008. *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-31 has not substantially increased vehicular traffic noise in the vicinity.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (i.e., classrooms, labs/studios, a library, a café, and recreational facilities) at ES-31, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2007, when the AAU occupied the building. Area sources were estimated based on a 73,666-square-foot “Junior College” land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of 540 round trips per day. There is a heater boiler at ES-31. However, this boiler was installed prior to AAU occupation of ES-31 and was not included in the air quality analysis. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 2005 was conservatively assumed for ES-31. Table 92 presents the estimated long-term operational emissions of ROG, Nox, PM_{10}, and PM2.5 from ES-31, which are all shown to be below BAAQMD’s daily and annual significance thresholds.

Table 92. 601 Brannan Street (ES-31) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	2.05	<0.01	<0.01	<0.01	0.37	<0.01	<0.01	<0.01
Energy	0.06	0.54	0.04	0.04	0.01	0.10	<0.01	<0.01
Mobile	5.15	9.67	2.85	0.97	0.90	1.81	0.50	0.17
Total Emissions	7.26	10.20	2.89	1.01	1.29	1.91	0.51	0.18
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-31 is not one of those sites; therefore, AAU occupation of ES-31 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-31 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-31 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-31: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-31 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational

facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-31.

Recreation

601 Brannan Street (ES-31) itself is primarily dedicated to classrooms, a library, labs/studios, and a I, as well as a basketball court and batting cages. Visitors to these amenities come and go throughout the day and do not represent a large permanent population in the community. ES-31 reduces recreational demand created by AAU's population of students and staff. Recreational opportunities are also available at Mission Creek Park, a San Francisco Recreation and Park Department (RPD) facility located within 0.25 mile of ES-31, as shown on Figure 4, p. 3-63. Mission Creek Park is located along the Mission Bay waterfront and features grass lawns, a tree-lined promenade, an outdoor amphitheater, sports courts, a boat launch, and off-leash dog play area.[914] Other publicly owned parks are within a 0.5-mile distance of ES-31, including Victoria Manalo Draves Park, South Park, and Eugene Friend Recreation Center.

As described in Population and Housing on p. 4-601, the capacity of ES-31 is 575 occupants. The change in use from office to educational services at ES-31 does not represent a substantial change in the daytime population of the area. ES-31 contains recreational facilities, and the other onsite educational uses have not generated substantial demand for other recreational opportunities. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-31 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous office land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[915] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-31. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building,

[914] Mission Bay Parks, Mission Creek Park. Available online at: http://missionbayparks.com/mission-creek-park/. Accessed on January 15, 2016.

[915] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[916] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-31 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[917] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[918] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-31 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[919] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

---

[916] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[917] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[918] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[919] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

601 Brannan Street has a capacity of 575 occupants (514 students and 61 faculty and staff). The change in use from office to educational services would not represent a substantial change in the daytime population of the area, as the population of an office building would be proximate to that of an educational services use. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-31.

Fire and Emergency Services

ES-31 is located within 2,500 feet of Fire Station No. 8 (36 Bluxome Street) and Fire Station No. 1 (935 Folsom Street). Fire Station No. 1 consists of a single fire engine, truck, and rescue squad. Fire Station No. 8 consists of a single fire engine and truck. [920] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to under 4:48 minutes. In 2011, Fire Station No. 8 responded to 857 non-emergency calls with an average response time of 9:51 minutes, with 90 percent of non-emergency calls responded to under 16:56 minutes. Fire Station No. 8 responded to 2,455 emergency calls with an average response time of 3:38 minutes, with 90 percent of emergency calls responded to under 4:55 minutes.[921]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-31 meet the Citywide emergency transport goals.

As described above on p. 4-601, the change in use from office to educational services would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed life safety upgrades and installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-31.

Libraries

The nearest public library to ES-31 is the newly constructed Mission Bay Library, which is 7,500 square feet and serves a population of 14,163. The Mission Bay Library had 128,536 visits in 2014.[922]

---

[920] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.
[921] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.
[922] San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.

Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

601 Brannan Street has a capacity of 575 (514 students and 61 faculty and staff). The change in use from offices to educational services would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Mission Bay and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, library use would be augmented by AAU's private library for research, studying, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-31.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as an educational services use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has occurred from the change in use at ES-31.

Biological Resources

ES-31 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-31. ES-31 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-31.

Geology and Soils

The site is underlain by approximately 20 feet of upper silty sand fill soils, some of which is likely associated with debris from the 1906 Earthquake and Fire. Below the fill is approximately 70 feet of soft plastic bay mud strata and deeper underlying old bay mud. Groundwater in the vicinity likely varies.[923] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

[923] Clayton Group Services, Phase I Environmental Site Assessment for 601 Brannan Street, November 2006.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-31 would be very strong during a magnitude 7.2 earthquake and strong during a 6.5 magnitude earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[924, 925] ES-31 is located within a liquefaction zone.[926] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-31 is composed of two conjoined buildings, partially concrete (western building) and partially brick (eastern building). ES-31 is not composed of unreinforced masonry and does not have a soft story.[927, 928] As a result, it does not have an increased risk of structural failure during an earthquake. Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from office to an educational services would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-31 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, painting, and re-roofing). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-31 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). Sea level rise inundation maps modeled by the SFPUC indicate that the site would not be inundated with a water level rise of approximately 12 inches, which is expected by 2050, even when the effects of 100-year storm surge are considered.[929] In addition, the site would

---

[924] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[925] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[926] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[927] City and County of San Francisco, UMB – All Report, December 1, 2014.

[928] Department of Building Inspection, Soft Story Property List, April 2016. Available online at http://sfdbi.org/soft-story-properties-list. Accessed on April 20, 2016.

[929] San Francisco Water Power Sewer, Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

not be inundated with 36 inches of water level rise which is expected by 2100; however, when the effects of a 25-year storm surge are considered under this scenario, portions of the building could be temporarily inundated at depths of 4–6 feet.[930] The flooding scenario assumes existing topographic conditions and no site-specific or area-wide flood protection measures. ES-31 is not located in an area that is vulnerable to tsunami risk.

Although flooding could occur, the degree is unknown and no housing occurs on the site. There are no aspects of the change in use or building alterations that have changed flood potential at the site because no new structures have been built. Further, the existing building would have been exposed to sea level rise regardless of AAU's change in use.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-31.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-31 indicated that the site and general vicinity have a lengthy history of diverse use between 1887 and 2000, including freight transfer, iron foundry operations, metal works, pipe fabrication, and auto repair.[931] These uses may have involved the use and storage or petroleum products and hazardous materials such as solvents, lubricating oil, welding, and cutting equipment. No specific hazardous conditions were reported, but a subsurface investigation is recommended if the property is to be disturbed in the future.[932] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1924, suggests that asbestos-containing materials (ACMs), lead-based paint, and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, an oil-filled transmitter and elevator, which may contain PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[933] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-31 for classrooms, a satellite library, labs/studios, a café, and recreational facilities. Hazardous materials that are used, stored, and disposed of at ES-31 include paints, lubricants, sealants, primers, wood stainer, styrene, bleach, bonding adhesive, resin, wood finish, paint thinner, paint stripper, 4-620rabicabic, acrylic cement, and polyurethane associated with the

[930] Ibid.
[931] Clayton Group Services, Phase I Environmental Site Assessment for 601 Brannan Street, November 2006.
[932] Clayton Group Services, Phase I Environmental Site Assessment for 601 Brannan Street, November 2006.
[933] Clayton Group Services, Phase I Environmental Site Assessment for 601 Brannan Street, November 2006.

postsecondary educational institutional use.[934] These products are stored in hazardous materials cabinets; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[935] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22.[936] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan. Article 22 authorizes the SFDPH Hazardous Materials Unified Program Agency (HMUPA) to implement and enforce requirements of the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-31 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-31 to ensure compliance with applicable regulations. Because the previous use of the building was offices, hazardous materials use has likely increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-31.

Tenant improvements at ES-31 associated with the conversion of office space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, p. 4-614. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[937] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-31, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-31. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-31 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-31 has not had a substantial effect on mineral or energy resources.

[934] Academy of Art, Hazardous Materials Inventory List for 601 Brannan Street, August 6, 2015.
[935] Academy of Art, Hazardous Materials Inventory List for 601 Brannan Street, August 6, 2015.
[936] Permit number: EPA# CAR000030262.
[937] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 601 Brannan Street, March 4, 2016.

Agricultural and Forest Resources

ES-31 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[938] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-31 has had no substantial effects on agriculture or forest resources.

[938] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.22. 460 Townsend Street (ES-33)

Property Information

The 460 Townsend Street existing site (ES-33) is a two-story, 25,920-square-foot building constructed in 1915. ES-33 is located on Townsend Street between 5th and 6th streets, in the South of Market (SoMa) neighborhood (Photographs 136–139). Figure 19, ES-33 and ES-34: 460 and 466 Townsend St – Existing Condition, in Appendix TDM, shows the location of both the 460 and 466 Townsend Street sites at Townsend and 6th streets. The site is Lot 023 in Assessor's Block 3785. The building has a capacity of 129 occupants (114 students, 15 faculty and staff). ES-33 is adjacent to 466 Townsend Street (ES-34), described in Section 4.2.23.

Prior to Academy of Art University (AAU) occupation in 2009, the building had been used as a wholesale facility. In 2010, AAU used ES-33 for classrooms, lab/studios, and offices. AAU currently uses the building for classrooms, studios, and student and faculty lounges. No shuttle stop is provided at this location. Students walk approximately 300 feet to the shuttle zone located in front of the adjacent 466 Townsend Street site (ES-34).

The site is zoned WMUO (West SoMa Mixed-Use Office) Zoning District and is within the Western SoMa Special Use District. The WMUO is designed to encourage office uses along with small-scale light industrial and arts activities. Educational services is a Conditional Use. The site is also located within the Western SoMa Special Use District. The height and bulk district is 85-X. ES-33 is located within the Central South of Market (SoMa), Western SoMa and South of Market Planning Areas.

Tenant Improvements and Renovations

AAU added security cameras without a building permit. On the interior, AAU built full-height partitions and installed fire alarms and sprinklers and upgraded the system, upgraded bathrooms, and made additional required life-safety upgrades all in 2010 and 2011.[939]

Required Project Approvals

The 460 Townsend Street existing site (ES-33) would require a CU authorization under Planning Code Sections 303 and 845.32, and a building permit under Planning Code Section 171 to change the use from industrial/wholesale to educational services within a WMUO (WSoMa Mixed-Use Office) Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review. ES-33 contained a Production, Distribution, and Repair (PDR) use. The Urgency Ordinance adopted by the Board of Supervisors on December 8, 2014, provides an extension of the interim PDR Conversion moratorium. The moratorium prohibits the conversion of PDR uses in the proposed Central SoMa Plan Area. If permanent controls do not permit institutional uses within the WSoMa Mixed Use-Office District, a legislative amendment to the Planning Code would be the only path for legalization.

[939] Building Permits obtained for the improvements and renovations at ES-33 are: BPA #201103303108 (partitions), #201103303107 (fire alarm [permit renewal]), #20110303105 (fire sprinklers), #201006013580 (fire sprinkler system upgrade), #201005051801 (bathroom upgrades and additional life-safety upgrades).

Photograph 136. 460 Townsend Street (ES-33).

Photograph 137. Mid-block Townsend St. facing northwest, ES-33 and 466 Townsend Street (ES-34) in the background.

Photograph 138. Mid-block Townsend Street, facing northeast.

Photograph 139. Mid-block Townsend Street, facing southwest toward the Caltrain right-of-way.

Plans and Policies and Land Use

Located in the South of Market (SoMa) neighborhood, ES-33 is bounded by 5th Street to the east, 6th Street to the west, Bluxome Street to the north, and Townsend Street to the south. Buildings on the subject block range from one to four stories and each is typically in a single use throughout the building (in contrast to other neighborhoods in which retail, service, or office uses are located on the ground floor with office or residential uses on the upper floors). The land uses surrounding ES-33 include public, residential, office, industrial, transportation, and commercial uses.

Townsend Street is a two-way street that runs east to west for approximately 0.16 mile between 5th Street and 6th Street. Metered parallel parking spaces are provided along the north side of Townsend Street, although many garage and loading entryways preclude parking. Diagonal parking is allowed on the south side of the street.

To the south of ES-33 is the Caltrain right-of-way and maintenance yard leading to the 4th and King Station on the southeast side of Townsend Street that extends from 4th Street to 7th Street. The length of the Caltrain right-of-way divides the SoMa neighborhood to the north and the Mission Bay neighborhood to the south. Along this right-of-way, metered angled parking is provided. To the west is an above-grade Interstate-280 off-ramp running north to 6th Street where it descends to ground level at Brannan Street. Underneath the off-ramp is an SFPD vehicle yard. To the east on 5th Street are multiple apartment complexes and office uses. To the north on Bluxome Street are apartments, including the live/work building occupied by AAU at 168 Bluxome, and commercial and industrial uses, as well as another AAU building, 601 Brannan Street, discussed in Section 4.2.21. The Bay Club, a private recreational facility, is located on 5th and Bluxome streets.

Most of the buildings along the subject block are converted industrial buildings, as can be seen from many of the extant truck loading bays on the building frontages. Adjacent to and west of ES-33 is another AAU building, ES-34, which is used for similar classroom and studio uses. West of ES-33 is a three-story residential building on the corner of Townsend Street and 6th Street. At the time of the site visit in September 2015, buildings east of ES-33 primarily appeared to be office uses, although some light industrial or warehouse activities may remain as some loading bays are still in use.

ES-33, originally built in 1915, has been converted from industrial/wholesale to an educational services use with classrooms, studios, and student and faculty lounges. The change in use of the existing structure did not involve any changes to the exterior of the building. On the interior, alterations are described above under Tenant Improvements and Renovations.

ES-33 is in the Western SOMA Mixed Use Office (WMUO). The WMUO Zoning District is designed to encourage office uses along with small-scale light industrial and arts activities. The WMUO Zoning District boundaries run predominantly along the Townsend Street corridor between 4th Street and 7th Street and on 11th Street, from Harrison Street to the north side of Folsom Street. Office; general commercial; most retail and production, distribution, and repair uses are also principal permitted uses. Residential uses, large hotels, adult entertainment, and heavy industrial uses are not permitted.[940] The site is also located within the Western SoMa Special Use District, Western

[940] Planning Code Section 845.

SoMa Community Plan, proposed Central SoMa Area Plan, and SoMa Area Plan. The Western SoMa Special Use District's goals are primarily to mitigate neighborhood impacts from new development projects.[941] The Western SoMa Community Plan's goal is to maintain the mixed-use character, while encouraging new residential and commercial uses. The SoMa Area Plan guides the locations, intensity, and character of new and expanded businesses and residential activity in SoMa. ES-33 is also in the proposed Central SoMa Area Plan, which attempts to support transit-oriented growth, shape the area's urban form, maintain vibrant economic and physical diversity, and support growth with improved streets and open space. The use of ES-33 as a postsecondary educational institution is consistent with the Western SoMa Area Plan, Western SoMa Special Use District, and SoMa Area Plan. The height and bulk district applicable to ES-33 is 85-X. The 85-X height and bulk district is applicable to the area along Townsend Street between 6th and Fourth streets. The Mission Bay Special Use District is located directly south of the site across Townsend Street.

The change in use of the site from industrial/wholesale to an educational services use did not substantially affect the character of the building, and the surrounding neighborhood continues to be a mixed-use neighborhood. Although ES-33 is located between the rail yard to the south and office/industrial uses to the north, the change in use would not physically divide an established community. The educational services use does not change the scale or neighborhood character, because only limited interior alterations to the building have occurred. However, the change in use could increase AAU's presence in the area, because the institution occupies the adjacent building at 466 Townsend and the building to the northeast of ES-33 at 601 Brannan Street.

The change to educational services use is subject to approval by the Planning Commission as a Conditional Use within a WMUO Zoning District. ES-33 would also require a building permit pursuant to Planning Code Section 171. Therefore the ES-33 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-33 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-33 is 129 occupants (114 students and 15 faculty and staff). The capacity does not represent total population, because AAU students and some faculty and staff members may use multiple sites for all or part of any given day. Some of the employment and student growth generated by the change in use may result indirectly in new residents of San Francisco. Occupation by AAU may have resulted in displacement of employees; however, industrial space was likely found elsewhere. Conservatively presuming that ES-33 was unoccupied prior to AAU use and that all

[941] *Planning Principles of the West SoMa Citizens Planning Task Force*, Adopted August 23, 2006. Available at http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=7210. Accessed on October 23, 2015.

occupants were also new residents of San Francisco, the change in population would be insubstantial, because it would represent less than 1 percent of the overall population of San Francisco (829,072).[942]

The change in use at ES-33 from industrial/wholesale use to educational services would have minimally changed the daytime population because the building, as a wholesale use, would have had a comparable capacity. Therefore, no substantial effect on population has occurred from the change in use at ES-33.

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-33 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from industrial/wholesale to educational services at ES-33 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-33 did not result in the displacement of housing because this site was previously used as industrial.

Aesthetics

ES-33 is located in the South of Market neighborhood, just north of the Mission Bay neighborhood. The building is two stories and was built in 1915. The building design has remained relatively unchanged since construction, except for stucco application and the replacement of windows. The building front has three defined bays with large roll-up doors and double-hung windows above. It has a stucco wall surface scored to appear as masonry, with brick construction on the east elevation. There are no street trees near ES-33. A sidewalk is located along 466 Townsend Street (ES-34); however, there is no sidewalk in front of ES-33 or the remainder of Townsend Street between 5th and 6th streets.

The buildings along Townsend Street are mainly two- to four-story commercial buildings that are converted industrial or warehouse spaces. The buildings appear to be largely of similar design and age with rectangular massing, flat roofs, and loading docks that front Townsend Street. Directly across Townsend Street is the visually prominent Caltrain right-of-way and maintenance yard, along with the elevated Interstate-280 off-ramp. Both pieces of regional infrastructure contribute to the urban form of the area. Development south of the Caltrain right-of-way is composed of modern high-rise residential buildings associated with the Mission Bay neighborhood.

View corridors in the vicinity are relatively unrestricted compared to other areas of San Francisco due to the flat topography and wide rights-of-way associated with Caltrain and Interstate-280. ES-33 is bounded by Townsend Street to the south, buildings to the north and east, and a small passageway adjacent and to the west of ES-33. A larger AAU institutional building, 466 Townsend Street (ES-34), is located directly west of the passageway at the corner of Townsend and 6th streets. Vehicle and pedestrian traffic is moderate along Townsend Street and can vary greatly. For example, traffic

[942] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces /tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

is primarily light during weekends and can be heavy during weekday peak periods and San Francisco Giants' baseball games.

The surrounding area contains mainly mid-rise buildings; however, building massing increases to the south of the Caltrain right-of-way and east along Townsend Street. The modern development south of Caltrain differs in form, character, and use compared to the primarily older post-industrial buildings along Townsend Street. The buildings along Townsend Street extend to the street and there are painted white lines that differentiate parking, bicycle lanes, and sidewalk space. In general, the surrounding buildings lack commercial signage and minimal advertising is visible along Townsend Street.

The change in use at ES-33 has caused no changes to the building and neighborhood aesthetic character, because exterior changes have been limited to the addition of security cameras. No AAU awnings, signs, or advertising associated with ES-33 is visible. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-33.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The low-rise building at 460 Townsend Street (ES-33) was constructed as a warehouse in 1915. The two-story rectangular building is set flush to the sidewalk. Built on a flat, rectangular lot, the building has a primary elevation facing Townsend Street and a secondary elevation facing the neighboring alley to the west. The building is constructed of brick and heavy timber, with exterior walls sheathed in smooth stucco, scored in areas to resemble masonry, and is capped with a flat roof with a parapet. The symmetrical primary elevation is composed of four defined structural bays with a large rectangular opening on the ground floor and a pair of vinyl double-hung windows recessed in the wall plane above. Three of the large ground floor openings are filled with roll-up doors and the fourth has been in-filled with a single personnel door, concrete, and glass block. Above the second floor, a cornice line spans the length of the façade. A secondary elevation is visible on the southwest facing the adjacent alley. There is a large original, wood double-door on the first floor and a metal stair case leads to the second story at the northern end of the elevation. The brick construction is visible on the elevation, although it has been painted to match the primary elevation. Original multi-pane, double-hung wood windows are evenly spaced horizontally along first and second story of the elevation (for representative photographs refer to Photographs 140 and 141).

Photograph 140. 460 Townsend Street.

Photograph 141. 460 Townsend Street, detail of secondary elevation.

Site History

The warehouse at 460 Townsend Street was built by the Moody Estate Company in 1915. The company was founded by Joseph L. Moody, who moved to San Francisco from Ohio in 1849 and became a developer of commercial real estate after attempts at other endeavors.[943] His estate, led by Frederick S. Moody, continued to manage his holdings, after his death in 1900, which included a block bounded by 5th Street, 6th Street, Brannan Street, and Townsend Street. In 1915, the estate H.H. Larsen and Company developed the lot and built the warehouse.[944]

Although historic newspapers and City directories offer little information about the building's early tenants, the 2009 Bluxome and Townsend Warehouse Historic District Record identifies Marketers

[943] San Francsico Call, Death of J.L.Moody, April 21, 1900.

[944] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department.

associated, Schmiedell & Co., Central Garden Supply, Pacific Electrical Supply Inc., and Lighting Systems Inc. as early occupants of the building. Building permits subsequently identify Richard Starsus as the owner by 1956 and Ares Properties and other individuals from 1972 through 1998, during which the time the building appears to have continuously operated as a warehouse. Work completed during this period included seismic upgrades, the installation of automatic fire sprinklers, and various interior improvements. From 2000 to 2001 Parachute Inc. occupied the building and is the last known tenant prior to AAU's occupation of the building in 2009.

California Register of Historical Resources Evaluation

460 Townsend Street (ES-33) does not appear individually eligible for the CRHR; it is a relatively modest industrial warehouse property and one of a number of similar properties in the neighborhood. In terms of eligibility as a contributor to a historic district, however, 460 Townsend Street was previously found to be a contributor to a locally eligible historic district. At the local level, the property derives its significance as part of a cohesive grouping of related industrial/warehouse buildings in the area. A district-wide CRHR evaluation was beyond the present scope of work and, at this time, the property does not appear eligible for the CRHR either individually or as a contributor to an eligible historic district. Subsequent survey work should consider the broader historic district and whether it meets the criteria of the CRHR.

460 Townsend Street has been altered though the replacement and infill of original doors and windows on the main (south) elevation; however, it still exhibits many of the features that convey the significance of the district, including scale, massing, and fenestration pattern. As such the building, and the district as a whole, retains sufficient historic integrity. The property has therefore been assigned a CHR Status Code of 5D3 and is considered a historical resource for the purposes of CEQA.

Character-Defining Features Summary

Exterior

- Scale and massing: two stories and rectangular plan
- Siting: flush with sidewalk
- Four defined bays; each with a large roll-up door opening on the ground floor and a pair of double-hung windows above
- Original multi-pane double-hung wood windows and wood door on west elevation
- Stucco wall surface scored to look like masonry, with brick construction, on primary southeast elevation
- Cornice with parapet on top

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

<u>Conclusion</u>

The project complies with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-33 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

<u>Transportation and Circulation</u>

ES-33 is located on the north side of Townsend Street, between Fifth and Sixth streets in the SoMa neighborhood. The two-story structure was built in 1915 as a warehouse building. This building currently includes approximately 25,920 gross square feet of AAU postsecondary educational institutional use, comprised of classrooms, studios, and student and faculty lounges. On a typical day there are approximately 99 students and 15 faculty/staff members at the site, although the capacity is slightly larger at 129 students and faculty/staff.

The building frontage on Townsend Street consists of three active loading docks that are used for loading activities such as moving items to the basement of the building where a storage room is located. The main pedestrian entry to the site is provided through a doorway on Townsend Street, and a secondary entry, used for fire egress, is provided through a gate on the west side of the building, which leads to a second story stairway entry/exit. There are five single cycle racks (five Class II spaces) on the first floor in the lobby, which is accessed via the main entrance on Townsend Street. There is no AAU shuttle stop provided at this site; however, shuttle service (Routes H and I) is provided at the 88-foot-long shuttle-only passenger-loading zone in front of the adjacent 466 Townsend Street site (ES-34), approximately 300 feet west of this AAU site.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at this AAU site generates approximately 118 person trips (45 inbound trips and 73 outbound trips) and 19 vehicle trips (seven inbound trip and 12 outbound trips) during the weekday PM peak hour.

Traffic

ES-33 and 466 Townsend Street (ES-34) are immediately contiguous. Due to the Caltrain tracks on the south side of Townsend Street, there are no buildings on the south side of the street. The north side of Townsend Street is generally a mix of office and warehouse uses. Townsend Street adjacent to the site has one travel lane and one bike lane in each direction, with on-street parking on both sides of the street. The parking on the south side is 45-degree (back-in) parking. There are no sidewalks along either side of Townsend Street at this location. Muni bus route 10-Townsend runs along Townsend Street, but most of transit services are in the vicinity of Fourth Street and Townsend Street. AAU shuttle bus routes (H and I) stop at this location and an additional route (G) was added in the fall semester of 2011. This stop is also a hub stop for AAU shuttle buses.

The existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions, are discussed below. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *the Better Streets Plan*.[945,946] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[947]

Bluxome Street is an east-west street that runs between Sixth and Fourth streets. In the vicinity of the AAU site, it has one travel lane in each direction and metered perpendicular parking on the south side of the street. Bluxome Street has low traffic volumes, as it serves mostly residential and office uses along the two-block local street.

Fifth Street is a north-south street/commercial throughway that runs between Market Street and Townsend Street. In the vicinity of the AAU site, it has two travel lanes in each direction and metered parking on both sides of the street. FIfth Street dead ends at King Street, so traffic volume is relatively low to moderate at this location. The *San Francisco General Plan* classifies Fifth Street as a Major Arterial in the CMP Network. Fifth Street is also designated as a High Injury Corridor in the City's Vision Zero network.

Townsend Street is an east-west street/commercial throughway that runs between Eighth Street and The Embarcadero. In the vicinity of the AAU sites, it has one travel lane and a bike lane in each direction with metered parking on both sides of the street. Traffic volumes along Townsend Street are light to moderate.

Sixth Street is a north-south street/commercial throughway that runs discontinuously between Market Street and Townsend Street. In the vicinity of the AAU sites, it has one travel lane in each direction. The *San Francisco General Plan* classifies Sixth Street as a Major Arterial in the CMP Network. Sixth Street is designated as a High Injury Corridor in the City's Vision Zero network.

The postsecondary educational institutional use at ES-33 adds 19 additional vehicle trips to adjacent streets during the PM peak hour (7 inbound and 12 outbound). Based on the level of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially altered as a result of AAU's use of ES-33.

Transit

The AAU postsecondary educational institutional use at ES-33 generates approximately 60 transit trips during the PM peak hour, 22 trips in the inbound direction and 38 trips in the outbound direction. The 460 Townsend Street site is served by Muni bus lines 10-Townsend, which operates along Townsend Street, and 47-Van Ness which operates along Fifth Street (see Figure 10, p. 4-605). The nearest bus stops to ES-33 are located at the Townsend Street/Fifth Street intersection. These bus stops do not have a shelter or service information. These routes provide further connections to Muni light rail and bus service on Market Street. ES-33 is 1.5 blocks (1,500 feet) from the Fourth and Townsend streets intersection, which has access to Caltrain, the Muni T-Third light rail line, Muni

---

[945] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[946] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[947] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

N-Judah light rail line, and several bus lines with stops along Townsend Street between Third and Fourth streets.

Table 93 presents the AM, midday, and PM frequencies of nearby Muni lines as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour. Both routes operate below the SFMTA performance standard of 85 percent capacity utilization during the PM peak hour.

Table 93. 460 Townsend Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	2nd St/ Townsend St	80%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
47 – Van Ness	Caltrain Depot to Beach via Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015).

As part of the SFMTA's Muni Forward, the following changes are proposed to routes in the vicinity of ES-33:

- Route 10-Townsend would have increased frequency east of Van Ness Avenue from 20 to six minutes during AM and PM peak period and from 20 to 10 minutes during midday period. It would also have a contraflow transit-only lane on Sansome Street.
- Route 30-Stockton would increase frequency east of Van Ness Avenue during AM peak from 4 to 3.5 minutes and west of Van Ness Avenue from 8 to 7 minutes.
- The Van Ness Corridor Transit Improvement Project would implement the Bus Rapid Transit (BRT) along Van Ness Avenue, which would reduce travel times for the routes 47-Van Ness and 49-Van Ness/Mission by 32 percent. Proposed improvements include dedicated transit-only lane for use by Muni and Golden Gate Transit buses only, enhanced traffic signals optimized for north-south traffic with Transit Signal Priority system, low-floor

vehicles and all-door boarding, safety enhancements for pedestrians, and boarding islands located at consolidated transit stops located along Van Ness Avenue at key transfer points.

The 60 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-33 along with the 262 transit trips from the adjacent 466 Townsend Street site (ES-34) are dispersed onto multiple transit routes. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Demand, p. 3-30, the increase in transit demand, in combination with transit trips from other AAU locations, has not made a substantial contribution to the existing transit service in the area. There is no shuttle stop provided at the site; thus AAU shuttle service has not substantially conflicted with the operation of transit vehicles.

Shuttle

The AAU postsecondary educational institutional use at ES-33 generates approximately 16 shuttle riders during the PM peak hour, seven riders in the inbound direction and nine riders in the outbound direction. Shuttle demand is likely higher at different times of the day for this site, depending on class scheduling. AAU shuttle Routes G, H, and I currently run adjacent to the site on Townsend Street, but no shuttle stop is provided at ES-33. Instead, students walk approximately 300 feet to the shuttle zone located in front of the adjacent 466 Townsend Street site (ES-34) to catch AAU shuttle bus Routes G, H, and I. In 2010, the site was served by two shuttle bus routes (H and I), both of which operated every 15 minutes. The total seating capacity at the time for these two routes was 494 in the PM peak hour. Routes H and I operated at 63 and 78 percent capacity, respectively, at the MLP during the PM peak hour in 2010. During the shuttle peak hour, Routes H and I operated at 126 and 130 percent capacity, respectively, at the MLP. MLPs occur at 466 Townsend Street and on Route H and at 79 New Montgomery on Route I. In spring 2015, three shuttle bus routes (G, H, and I) operate with 30-, 20-, and 20-minute headways, respectively, resulting in a total capacity of 300 seats in the PM peak hour, a 40 percent reduction of service as compared to 2010.

Based on the current shuttle capacity, the 16 shuttle riders combined with the 69 shuttle riders from 466 Townsend Street (ES-34) during the PM peak hour are likely accommodated on Routes G, H, and I. However, since these routes also serve other residential and institutional locations, a Condition of Approval to assess and monitor shuttle bus ridership and capacity utilization of Routes G, H, and I is recommended below. If additional shuttle capacity is needed to serve this site and the adjacent 466 Townsend Street (ES-34) site, increasing shuttle frequencies or shuttle bus sizes are examples of how this could be achieved.

Townsend Street is a designated bicycle route (Route 36) and has bike lanes along both sides of the street. During the field observation, no substantial conflicts between AAU shuttle buses and bicycle traffic were noted because the white passenger loading zone is sufficiently long for shuttle buses and they do not need to double park on the street. There are approximately eight shuttle buses per hour stopping at 466 Townsend Street (ES-34). The 10-Townsend bus line operates along Townsend Street, but, as discussed above, no substantial conflicts between AAU shuttle buses and Muni vehicles were noted.[948]

[948] Field observation was made by CHS on Thursday, July 16, 2015, between 1:00 p.m. and 3:00 p.m.

Pedestrian

The AAU postsecondary educational institutional use at ES-33 generates approximately 93 pedestrian trips during the PM peak hour, 17 walking, 60 transit, and 16 shuttle trips. There are no raised sidewalks in front of the site, unlike the adjacent 466 Townsend Street (ES-34) site. Sidewalks along Fifth Street, Townsend Street (in front of 466 Townsend Street [ES-34]) and Sixth Street are approximately 10 feet wide. Between Fifth Street and ES-33, there is a 10-foot area between on-street parking spaces and building frontage for pedestrian circulation, but it is unprotected. Similarly, the building adjacent and to the east does not have sidewalks. Bluxome Street (there is a gated walkway between the two buildings extending to Bluxome Street) has eight-foot-wide sidewalks on both sides of the street. Sixth Street to the west of the site is designated as a High Injury Corridor in the City's Vision Zero Improvement Plan. Intersections along Townsend Street at Fifth and Sixth streets are both stop-sign controlled with well-defined crosswalk markings. As indicated above, the three loading docks along the building frontage are active and generate loading activities occasionally. The primary pedestrian access to the site is from Townsend Street through a doorway, and a secondary entrance is provided through the side doorway, which is used for fire egress from the second floor of the building.

Pedestrian volumes were observed to be generally light in the vicinity of the site, and pedestrians were observed to move freely in the sidewalks, crosswalk areas, and along the pavement area between the parking lane and the site border. There were no indications of overcrowding within the pedestrian areas, nor were there considerable amounts of pedestrians standing outside of the AAU site. The 93 pedestrian trips at ES-33 and the 405 pedestrian trips at the adjacent 466 Townsend Street (ES-34) site add pedestrian volumes in the area.

Since AAU is adding up to 498 pedestrian trips to the area, which lacks pedestrian facilities, a Condition of Approval is recommended to provide a continuous sidewalk along the frontage of the building.

Bicycle

The AAU postsecondary educational institutional use at ES-33 generates three bicycle trips during the PM peak hour, one trip inbound and two trips outbound. Bicycle Route 36 is a Class II bicycle facility (striped bike lanes) that runs along Townsend Street, providing direct access to the site. Route 36 connects to bicycle Route 23 on Eighth Street to the west and Route 5 on The Embarcadero to the east. There are five single-cycle racks (five Class II spaces) located inside the building near entrance, accessed from the front door.[949] The site's three PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area. This site generates a bicycle parking demand of approximately four spaces, which are generally accommodated in the existing five bicycle parking spaces.[950] No bicycle parking is required under the Planning Code for this site.

[949] Bicycle parking data was provided by AAU and verified by Planning Department staff.

[950] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

Loading

The AAU postsecondary educational institutional use at ES-33 generates approximately three daily truck trips, which equates to a loading demand of less than one (approximately 0.1) trip in an average hour or peak demand hour (0.2 trips). The site has three loading docks from its former warehouse use; however, these loading docks are inactive and do not accommodate any truck loading activities. There are no commercial loading zones near the site. Therefore, commercial vehicle deliveries are required to use on-street parking, including the area in front of the loading docks, or the on-site loading docks for deliveries.

Field observations of commercial loading activities were conducted during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, and no AAU-related freight/delivery vehicles or related activities occurred within the on-street loading zones or loading dock area on Townsend Street. Due to low daily delivery activity (less than one delivery per day) as noted during site visit and low traffic volumes during weekday midday along Townsend Street, loading demand is accommodated in areas near the AAU site. A recommended Condition of Approval to install a sidewalk in front of the building is suggested, considering possible operational or safety issues.

Garbage collection at this site occurs on the north side Townsend Street, next to the entrance for the site. Trash receptacles are placed on Townsend Street at designated areas. Garbage collection along Townsend Street occurs three times a week in the late night hours.

Parking

The AAU postsecondary educational institutional use at ES-33 generates a parking demand of three parking spaces by commuter students. The site does not provide any off-street parking spaces.

The parking study area for this site is the same as that for 601 Brannan Street (ES-31) due to its proximity; thus the on-street and off-street parking survey data for this site are presented in Tables 90 and 91 above under 601 Brannan Street (ES-31). There are a total of 170 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was observed to be high, averaging about 86 percent between 1:00 p.m. and 3:00 p.m. There are eleven public off-street parking facilities with a total of 1,838 parking spaces. Parking occupancy at off-street parking facilities was not observed. The academic use at ES-33, with a demand of three parking spaces, is not expected to have substantially added to the parking demand in the vicinity.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately 0.6 mile north of the site. From the station, vehicles are able to access the AAU site via Fifth and Townsend streets and would be able to park along Townsend Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-33 include a potential shuttle service deficiency, a lack of sidewalk and the Townsend Street pedestrian environment, limited bicycle parking and commercial loading zones in the vicinity. To address these constraints, the following improvement/conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-33: TR-1, Shuttle Demand and Capacity. AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes (G, H, and I), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the routes.

Recommended Condition of Approval, ES-33: TR-2, Sidewalk on Townsend Street. AAU shall provide a continuous sidewalk along the frontage of the 460 Townsend Street site that connects to the adjacent AAU site at 466 Townsend Street (ES-34), considering the possible operational or safety issues.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 460 Townsend Street site (ES-33) is located on the north side of Townsend Street between 5th and 6th streets in the South of Market neighborhood. This AAU institutional use comprises classrooms, studios, and student and facility lounges. In 2010, AAU shuttle routes H and I served ES-33. As of 2015, AAU shuttle routes G, H, and I serve ES-33. According to the San Francisco Transportation Noise Map,[951] the existing traffic noise level near ES-33 from vehicular traffic along Townsend Street and the I-280 elevated ramps nearby was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms are not considered a protected sensitive land use under the *San Francisco General Plan*.

AAU did not install or modify any existing rooftop mechanical equipment at ES-33. Since there are no new rooftop stationary sources at the site, there would have been no increase rooftop mechanical equipment noise that did not already exist prior to AAU occupation. In addition, the activities in the ES-33 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore, the change in use at ES-33 would not have exceeded the standards established by the City for noise effects on sensitive receptors near ES-33.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when AAU occupied the building and remain compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-33 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore the change in use at ES-33 would have not exceeded the standards established by the City for effects on sensitive receptors near ES-33.

[951] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Vehicular traffic noise at ES-33 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 190 trips per day.[952] According to the San Francisco Transportation Noise Map,[953] the existing traffic noise level near ES-33 from vehicular traffic along Townsend Street and the elevated freeway ramp was approximately 75 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-33 by AAU contribute approximately 46 dBA L_{dn} to local traffic noise levels. When the ES-33 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-33 has not substantially increased vehicular traffic noise in the vicinity.

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/studios, and student and faculty lounges) at ES-33, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2009, when AAU occupied the building. Area sources were estimated based on a 25,920-square-foot “Junior College” land use designation in CalEEMod and mobile-source emissions were based on a daily vehicle trip rate of 190 round trips per day. There are no onsite generators or boilers at ES-33. Since CalEEMod only allows the user to model years 1990, 2000 and 2005, an operational year of 2005 was conservatively assumed for ES-33. Table 94 presents the estimated long-term operational emissions of ROG, Nox, $PM_{10,}$ and PM2.5 from ES-33, which are all shown to be below BAAQMD’s daily and annual significance thresholds.

Table 94. 460 Townsend Street (ES-33) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.72	<0.01	<0.01	<0.01	0.13	<0.01	<0.01	<0.01
Energy	0.02	0.19	0.01	0.01	<0.01	0.03	<0.01	<0.01
Mobile	1.81	3.40	1.00	0.34	0.32	0.64	0.18	0.06
Total Emissions	2.55	3.59	1.02	0.36	0.45	0.67	0.18	0.06

952 CHS Consulting group, *AAU ESTM Transportation Section Draft #1A,* January 2016.
953 San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on p. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-33 is not one of those sites; therefore, AAU occupation of ES-33 has not resulted in increased health risks for nearby sensitive receptors.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-33 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-33 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building

Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-33: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use are not considered substantial.

Wind and Shadow

The tenant improvements at ES-33 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-33.

Recreation

As shown on Figure 4, p. 3-63, 460 Townsend Street (ES-33) is located within 0.25 mile of one San Francisco Recreation and Park Department (RPD) facility: Mission Creek Park. Located along the Mission Bay waterfront, Mission Creek Park features grass lawns, a tree-lined promenade, an outdoor amphitheater, sports courts, a boat launch, and off-leash dog play area.[954] Other publicly owned parks are within a 0.5-mile distance of ES-33, including Victoria Manalo Draves Park, South Park, and Gene Friend Recreation Center.

As described in Population and Housing on pp. 4-626 – 4-627, the capacity of ES-33 is 129 occupants. The change in use from industrial/wholesale to educational services at ES-33 use does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Mission Creek Park facilities. In addition, AAU student and faculty access to recreational facilities is augmented by AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-33 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site had water service and consumption associated with the previous industrial/wholesale land use prior to AAU occupancy. Therefore, the change in use does not represent new or substantially increased water or wastewater demand. Presuming the subject site was

[954] Mission Bay Parks, Mission Creek Park. Available online at: http://missionbayparks.com/mission-creek-park/. Accessed on January 15, 2016.

vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[955] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-33. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[956] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use may have incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-33 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[957] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[958] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

---

[955] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

[956] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[957] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[958] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

Biological Resources

ES-33 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-33. ES-33 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-33.

Public Services

Police

ES-33 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[959] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

460 Townsend Street has a capacity of 129 occupants (114 students and 15 faculty and staff). The change in use from industrial/wholesale to educational services would not represent a substantial change in the daytime population of the area. Therefore, demand for additional police protection would be negligible. In addition, Department of Campus Safety staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-33.

Fire, and Emergency Services

ES-33 is located within 2,500 feet of Fire Station No. 8 (36 Bluxome Street) and Fire Station No. 1 (935 Folsom Street). Fire Station No. 1 consists of a single fire engine, truck, and rescue squad. Fire Station No. 8 consists of a single fire engine and truck. [960] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

---

[959] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent .com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

[960] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to under 4:48 minutes. In 2011, Fire Station No. 8 responded to 857 non-emergency calls with an average response time of 9:51 minutes, with 90 percent of non-emergency calls responded to under 16:56 minutes. Fire Station No. 8 responded to 2,455 emergency calls with an average response time of 3:38 minutes, with 90 percent of emergency calls responded to under 4:55 minutes.[961]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-33 meet the Citywide emergency transport goals.

As described above on pp. 4-626 – 4-627, the change in use from a wholesale to an educational services use would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed life safety upgrades and installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use since AAU occupied the building in 2007. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-33.

Libraries

The nearest public library to ES-33 is the newly constructed Mission Bay Library, which is 7,500 square feet and serves a population of 14,163. The Mission Bay Library had 128,536 visits in 2014.[962] Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

As described above on pp. 4-626 – 4-627, the change in use from industrial/wholesale to an educational services use would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Mission Bay and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-33.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

---

[961] San Francisco Planning Department, *Academy of Art University Project Draft EIR*, pp. 4.13-4 - 4.13-5, February 2015.

[962] San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.

The change in use under AAU as an educational services use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-33.

Geology and Soils

Soils near ES-33 are classified as urban land fill likely associated with debris from the 1906 Earthquake and Fire.[963] The fill soil layer reportedly varies in thickness and extends into initial water bearing soil. The nearest water body, San Francisco Bay, is located 0.25 miles to the southeast. As such, the depth to groundwater is 5 to 8 feet below ground surface. The basement is equipped with a sump pump suggesting that water table levels at times rise above the level of the basement floor.[964] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-33 would be violent during a magnitude 7.2 earthquake and strong during a 6.5 magnitude earthquake originating from the San Andrea Fault or Hayward Fault, respectively.[965, 966] ES-33 is located within a liquefaction zone.[967] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-33 is a masonry building with timber construction that underwent seismic upgrades in 1995 by a previous owner.[968] Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from industrial/wholesale to a postsecondary educational institution would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-33 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of security cameras). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the

[963] Geologica, Inc., Phase I Environmental Site Assessment for 460 Townsend Street, July 2010.
[964] Geologica, Inc., Phase I Environmental Site Assessment for 460 Townsend Street, July 2010.
[965] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[966] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[967] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.
[968] Permit #9511819 (Seismic upgrade).

change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-33 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). Sea level rise inundation maps modeled by the SFPUC indicate that the site would not be inundated with a water level rise of approximately 12 inches, which is expected by 2050, even when the effects of 100-year storm surge are considered.[969] In addition, the site would not be inundated with 36 inches of water level rise which is expected by 2100; however, when the effects of a 25-year storm surge are considered under this scenario, portions of the building could be temporarily inundated at depths of 4–6 feet.[970] The flooding scenario assumes existing topographic conditions and no site-specific or area-wide flood protection measures. ES-33 is not located in a tsunami hazard zone.

Although flooding could occur, the degree is unknown and no housing occurs on the site. There are no aspects of the change in use or building alterations that have changed flood potential at the site because no new structures have been built. Further, the existing building would have been exposed to sea level rise regardless of AAU's change in use.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-33.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-33 did not identify the presence of underground storage tanks (USTs) or significant historic use of hazardous materials, although the site was used for industrial and warehousing purposes.[971] Based on the large number of nearby facilities with reported environmental concerns and the location of the property in an area with an extensive history of commercial/industrial activities, there is a potential that the subsurface soil and groundwater is impacted.[972] Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1915, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. No suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before

[969] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.
[970] Ibid.
[971] Geologica, Inc., Phase I Environmental Site Assessment for 460 Townsend Street, July 2010.
[972] Geologica, Inc., Phase I Environmental Site Assessment for 460 Townsend Street, July 2010.

1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[973] Prior to building alterations, materials were tested for ACM and LBP. No ACMs were detected, while some LBP was discovered on one of the samples.[974] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

ES-33 is used for classrooms, studios, and student and faculty lounges. Hazardous materials that are used, stored, and disposed of at ES-33 include commercial household-style consumer products, such as cleaners, disinfectants, and chemical agents. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Use of these materials generates household-type hazardous waste, which do not result in substantial adverse effects.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-33.

Tenant improvements at ES-33 associated with the conversion of industrial/wholesale space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU’s compliance with all the requirements listed in the City’s GHG Compliance Checklist is described in Greenhouse Gas Emissions, pp. 4-640 – 4-641. The GHG Compliance Checklist includes the City’s Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU’s compliance with the City’s Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU’s change in use.[975] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-33, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at neighboring 466 Townsend Street (ES-34). This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For all of these reasons, the change in use at ES-33 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

[973] Geologica, Inc., Phase I Environmental Site Assessment for 460 Townsend Street, July 2010.
[974] RGA Environmental, Inc., Limited Asbestos and Lead Survey Report, Academy of Art University, 460 Townsend Street, June 4, 2010.
[975] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 460 Townsend Street, March 4, 2016.

Therefore, the change in use at ES-33 has not had a substantial effect on mineral or energy resources.

Agricultural and Forest Resources

ES-33 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[976] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural or forest land use. Therefore, the change in use at ES-33 has had no substantial effects on agriculture or forest resources.

[976] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

4.2.23. 466 Townsend Street (ES-34)

Property Information

The 466 Townsend Street existing site (ES-34) is a three-story, 113,436-square-foot building constructed in 1920. ES-34 is located on the corner of Townsend and 6th streets in the South of Market (SoMa) neighborhood (Photographs 142–145). Figure 19, ES-33 and ES-34: 460 and 466 Townsend St – Existing Condition, in Appendix TDM, shows the location of both the 460 and 466 Townsend Street sites at Townsend and 6th streets. The site is Lot 005 in Assessor's Block 3785. The building has a capacity of 740 occupants (675 students, 65 faculty and staff).

Prior to Academy of Art University (AAU) occupation in 2005, the building had been a data center/telecommunications facility. In 2010, AAU used ES-34 for classrooms, labs/studios, acting stages, and offices. AAU currently uses the building for classrooms, labs/art studios, an art store, and student and faculty lounges. Three AAU shuttle bus routes (Routes G, H, and I) use the 88-foot-long shuttle-only passenger loading zone located along the frontage of the site, with a "No Parking Shuttle Bus Zone" sign posted on a pole by the white zone.

Like next-door at 460 Townsend Street (ES-33), the site is zoned WMUO (WsoMa Mixed-Use Office) Zoning District and is within the Western SoMa Special Use District. The WMUO is designed to encourage office uses along with small-scale light industrial and arts activities. Educational services is a Conditional Use. The site is also located within the Western SoMa Special Use District. The height and bulk district is 85-X. ES-34 is located within the Central South of Market (SoMa), Western SoMa, and South of Market Planning Areas.

Tenant Improvements and Renovations

AAU upgraded the fire protection system, painted and subsequently removed exterior wall signs, made seismic upgrades, and filled in exterior windows. AAU conducted air handler and ductwork without a permit in 2011.[977] AAU installed a metal vent hood on an in-filled entry on the south elevation without a building permit. AAU installed twelve rooftop condenser units without building permits.

Required Project Approvals

The 466 Townsend Street existing site (ES-34) would require a CU authorization under Planning Code Sections 303 and 845.32, and a building permit under Planning Code Section 171 to change the use from industrial/internet services exchange to educational services within a WMUO (WsoMa Mixed-Use Office) Zoning District. Any unpermitted alterations would require a building permit that would be subject to historic preservation design review. ES-34 contained a Production, Distribution,

[977] Building Permits obtained for the improvements and renovations at ES-34 are: BPA #201001154856 (final inspection for work performed under earlier permit to remove 2 pre-action system equipment converted to wet fire systems), #201001255254 (obtain final inspection for work done in 2005 on structural seismic upgrades and exterior window infill), #201008138761 (fire alarm system), #201108102145 (air handler and ductwork, permit never issued), #201301248669 (wall sign removal), and #201006023654 (2nd and 3rd floor fire sprinkler system upgrade).

Photograph 142. 466 Townsend Street (ES-34).

Photograph 143. Mid-block Townsend Street, facing northeast.

Photograph 144. Townsend Street at 6th Street, facing north.

Photograph 145. Townsend Street at 6th Street facing southeast, toward the Caltrain right-of-way.

and Repair (PDR) use. The Urgency Ordinance adopted by the Board of Supervisors on December 8, 2014, provides an extension of the interim PDR Conversion moratorium. The moratorium prohibits the conversion of PDR uses in the proposed Central SoMa Plan Area. If permanent controls do not permit institutional uses within the WSoMa Mixed Use-Office District, a legislative amendment to the Planning Code would be the only path for legalization.

Plans and Policies and Land Use

Located within the South of Market (SoMa) neighborhood, ES-34 is located on the northeastern corner of Townsend and 6th streets. Buildings on the subject block range from one to four stories and are typically of a singular use throughout the buildings (in contrast to other neighborhoods in which retail, service, or office uses are located on the ground floor with office or residential uses on the upper floors). The land uses surrounding ES-34 include public, transportation, residential, office, industrial, and commercial uses.

Townsend Street runs east to west with one lane in each direction and bicycle lanes on both sides of the street. Metered parallel parking spaces are provided along the north side of Townsend Street, although many garage and loading entryways preclude these areas from parking use. Metered parking is also located on the east side of 6th Street, residential parking is reserved on the west side.

To the south of ES-34 is the Caltrain right-of-way and maintenance yard leading to the 4th and King Station on the southeast side of Townsend Street from 4th Street to 7th Street. The length of the Caltrain right-of way divides the SoMa neighborhood to the north and the Mission Bay neighborhood to the south. Along this right-of-way, metered angled parking is provided. To the west is an above-grade Interstate-280 off-ramp running northeast to 6th Street where it descends to ground level at Brannan Street. Underneath the off-ramp is an SFPD vehicle yard. To the east on 5th Street are multiple apartment complexes and office uses. To the north on Bluxome Street are apartment uses, including the live/work units at 168 Bluxome occupied by AAU, commercial and industrial uses, as well as another AAU building, 601 Brannan Street. The Bay Club, a private recreational facility, is located on 5th Street and Bluxome Street.

Most of the buildings along the subject block are converted industrial buildings, as can be seen from many of the extant truck loading bays on the building frontage. Adjacent to and east of ES-34 is another AAU building, 460 Townsend Street (ES-33), which is used for similar classroom and studio uses. South of ES-34 is a three-story residential building on the corner of Townsend Street and 6th Street. At the time of the site visit in September 2015, buildings north of ES-34 primarily appeared to be office uses, although some light industrial or warehouse activities may remain as some loading bays are still in use.

ES-34, originally built in 1920, has been converted from an industrial storage use to an educational services use with classrooms, labs/art studios, an art store, and student and faculty lounges. The change in use involved limited exterior alterations including adding a metal canopy over the main entrance and some window replacements.

The zoning near ES-34 is Western SOMA Mixed Use Office District (WMUO). The WMUO is designed to encourage office uses along with small-scale light industrial and arts activities. The WMUO zoning boundaries run predominantly along the Townsend Street corridor between 4th Street and 7th Street and on 11th Street, from Harrison Street to the north side of Folsom Street. Office, general commercial, most retail, production, distribution, and repair uses are also principal permitted uses. Residential uses, large hotels, adult entertainment, and heavy industrial uses are not permitted.[978] The property is also located within the Western SoMa Special Use District, Western SoMa Community Plan, SoMa Area Plan, and proposed Central SoMa Area Plan. The Western SoMa Special Use District's goals are primarily to mitigate neighborhood impacts from new development projects.[979] The Western SoMa Community Plan's goal is to maintain the mixed-use character, while encouraging new residential and commercial uses. The SoMa Area Plan guides the locations, intensity, and character of new and expanded businesses and residential activity in SoMa. ES-33 is also in the proposed Central SoMa Area Plan, which attempts to support transit-oriented growth, shape the area's urban form, maintain vibrant economic and physical diversity, and support growth with improved streets and open space. The use of ES-33 as a postsecondary educational institution is consistent with the Western SoMa Area Plan, Western SoMa Special Use District, and SoMa Area Plan. The height and bulk district for ES-34 is 85-X, which is the height and bulk controls for the area along Townsend Street between 6th and 4th streets. The Mission Bay Special Use District is located directly south of the property across Townsend Street.

The change in use of the site from a light industrial warehouse to an educational services use did not substantially affect the character of the building and surrounding uses were maintained as a mixed-use neighborhood. Although ES-34 is located between residential uses to the south and office/industrial uses to the north, the change in use would not physically divide an established community. The educational services use does not change the scale or neighborhood character, as only limited exterior alterations to the building have occurred. However, the change in use could increase AAU's presence in the area, as the institution leases and occupies the adjacent building at 460 Townsend and the building to the northeast of ES-34 at 601 Brannan Street.

Education service use is subject to approval by the Planning Commission as a Conditional Use within a WMUO District. ES-34 would also require a building permit pursuant to Planning Code Section 171. Therefore the ES-34 uses would not conflict with any applicable land use plans, policy, or regulation adopted for the purpose of avoiding or mitigating environmental affects, and the uses as ES-34 would not result in any substantial effects on the environment.

Population and Housing

Population

Please refer to Section 3.3.2, Population and Housing, for the discussion of the combined population from AAU on-site student population and faculty/staff figures.

The capacity of ES-34 is 740 occupants (675 students and 65 faculty and staff). The change in use at ES-34 from industrial/internet services exchange use to educational services would increase the population at the site, as data centers typically have very little staff. Occupation by AAU may have resulted in displacement of employees; however, industrial space was likely found elsewhere. Some of the employment and student growth associated with the change in use may generate new residents

[978] Planning Code Section 845.
[979] *Planning Principles of the West SoMa Citizens Planning Task Force*, Adopted August 23, 2006. Available at http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=7210. Accessed on October 23, 2015.

of San Francisco. Conservatively presuming that ES-34 was unoccupied prior to AAU use and that all occupants were also new residents of San Francisco, the change in population would be insubstantial, as it would represent less than 1 percent of the overall population and growth rate of San Francisco (829,072).[980]

Housing

Please refer to Section 3.3.2, Population and Housing, for housing characteristics of San Francisco and AAU.

The housing demand created by ES-34 and all existing sites is discussed under the combined housing discussion, pp. 3-15 – 3-18. The change in use from industrial/internet service exchange to educational services at ES-2 contributed to the overall demand for AAU student and employee housing in San Francisco. However, the change of use at ES-34 did not result in the displacement of housing because this site was previously used as industrial.

Aesthetics

ES-34 is located in the South of Market neighborhood, just north of the Mission Bay neighborhood. The building is three stories and was built in 1920. The rectangular building has a smooth stucco exterior with horizontal banding across the building and vertical banding across window bays. There is an extending tower on the roof above the main entry.

The buildings along Townsend Street are mainly two- to four-story commercial buildings that are converted industrial or warehouse spaces. The buildings appear to be largely of similar design and age with rectangular massing, flat roofs, and loading docks that front Townsend Street. ES-34 has the largest building massing on the subject block. Directly across Townsend Street is the visually prominent Caltrain right-of-way and maintenance yard, along with the elevated Interstate-280 off-ramp. Both pieces of regional infrastructure contribute to the urban form of the area. Development south of the Caltrain right-of-way is composed of modern mid- and high-rise residential buildings associated with the Mission Bay neighborhood.

View corridors in the vicinity are relatively unrestricted compared to other areas of San Francisco due to the flat topography and wide right-of-ways associated with Caltrain and Interstate-280. ES-34 is bounded by Townsend Street to the south, buildings to the north, 6th Street to the west, and a small passageway adjacent and to the east of ES-34. A smaller AAU institutional building, 460 Townsend Street (ES-33), is located directly east of the passageway at 460 Townsend Street. Vehicle and pedestrian traffic is moderate along Townsend Street and can vary greatly. For example, traffic is primarily light during weekends and can be heavy during weekday peak periods and San Francisco Giants' games.

The surrounding area contains mainly mid-rise buildings; however, building massing increases to the south of the Caltrain right-of-way and east along Townsend Street. The modern development south of Caltrain differs in form, character, and use compared to the primarily older post-industrial

[980] U.S. Census Bureau, 2009-2014 5-Year American Community Survey 5- Year Estimates, San Francisco County, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces /tableservices/jsf/pages/productview.xhtml?src=CF. Accessed February 2, 2016.

buildings along Townsend Street. The buildings along Townsend Street extend to the street and there are painted white lines that differentiate parking, bicycle lanes, and sidewalk space. In general, the surrounding buildings lack commercial signage and minimal advertising is visible along Townsend Street.

The change in use at ES-34 has caused minimal changes to the building and neighborhood aesthetic character. The only AAU-identifying feature includes a flag that flies above the building. No other AAU awnings, signs, or advertising associated with ES-34 is visible. Therefore, no substantial adverse aesthetic effect has occurred from the change in use at ES-34.

Cultural and Paleontological Resources

Historic Architectural Resources

Building Description

The low-rise building at 466 Townsend Street was constructed as a warehouse in 1920. The three-story rectangular building is set flush to the sidewalk and built on a flat, rectangular lot. The primary elevation faces Townsend Street, and secondary elevations faces the adjacent alley and 6th Street. The overall character, massing, and reinforced concrete construction of the property are characteristic of post-1906 Earthquake and Fire industrial reconstruction in the South of Market. The building displays a symmetrical design composition, with design details provided in horizontal and vertical banding. Smooth stucco sheathes the exterior walls. The building is capped with a flat roof with a parapet and a shallow, unadorned overhanging eaves.

Centered on the façade, the main entry consists of aluminum glass doors with sidelights and a transom, sheltered beneath a metal canopy supported on knee-braces. Large roll-up doors are located on eastern and western end of the elevation. Former large openings on the northern end of the elevation have been in-filled. Vertical and horizontal bands frame the stacked windows, creating bays and a distinctive fenestration pattern within the bays. Original windows have been replaced with multi-light fixed windows or in-filled with concrete and scored to replicate the multi-light window pattern. Centered above the main entry on the roof is an extending tower with a flag pole. The secondary elevations continue the fenestration and bay pattern and use of windows and scored concrete of the façade. Along the southwest elevation, on the first story of each bay, are large rectangular vents and a roll-up door. A small portion of the northwestern elevation is visible along 6th Street. Although there is no fenestration, the masonry construction is visible. On the northeastern elevation, the windows have been in-filled (for representative photographs refer to Photographs 146 and 147).

Photograph 146. 466 Townsend Street.

Photograph 147. 466 Townsend Street, secondary elevation.

Site History

Constructed in 1920, the building at 466 Townsend Street has provided warehouse space for a variety of tenants since its construction. Historic newspapers and City directories offer limited information on its early tenants. From circa 1945 through 1958, the building was occupied by wholesale grocers, United Grocers Ltd, followed by house furnishing manufacturer Ellery of California, Jencraft Manufacturing Company, and Western Curtain Manufacturing Company in 1968. [981]

By 1978, the building was occupied by Frontier Management Corp., who employed Roger Benson to install movable partitions on the interior. Roll-up doors on the ground levels were subsequently replaced by Bill Wrens Towing in 1980, and by 1987 the building was owned by San Francisco Partners. Building permits indicate that the building was occupied by multiple tenants in 2000, including Markley Steams Partner, Firstworld Communications, and Adelphia Business Solutions. It was during this time, and prior to AAU's occupation of the building in 2005, that the upper-level

[981] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department.

windows were in-filled as part of seismic upgrades to the building. Since AAU's occupation of the building, a vent hood was installed within one of the in-filled ground-level doorways.

California Register of Historical Resources Evaluation

In 1996, 466 Townsend Street was formally determined eligible for listing in the National Register of Historic Places (NRHP), through the Section 106 review process, and subsequently listed in the California Register of Historical Resources (CRHR).[982] It is therefore considered a historical resource for the purposes of CEQA.

The property was subsequently identified in 2009 as a contributor to the Bluxome and Townsend Warehouse District.[983] Bound by Bluxome, Townsend, 5th, and 6th streets, the historic district contains a cohesive group of nine warehouse constructed between 1912 and 1936, which feature similar scale, materials, and architectural styles, and represent the reconstruction of industrial properties in the South of Market area in the years after the 1906 Earthquake and Fire. Collectively, these resources appear to be directly associated with a series of events that are significant within the history of San Francisco, and which appear eligible for local designation as a historic district under National Register Criterion A. Further, the historic district represents a concentration of properties that possess the distinctive characteristic of a type, period, or method of construction and appears eligible for local designation under National Register Criterion C.

Since 466 Townsend Street was recorded in 1996, but prior to AAU occupation in 2005, many of the buildings windows were in-filled. However, the building still retains many of the features that convey its significance as post-1906 Earthquake and Fire Reconstruction period warehouse, including its scale, massing, fenestration pattern, and limited architectural detailing. The building, and the district as a whole, retains sufficient historic integrity and there is no information to suggest that it should no longer be listed in the CRHR. For this reason, 466 Townsend Street is still considered a historical resource for the purposes of CEQA.

Character-Defining Features Summary

Exterior

- Scale and massing: mid-rise, rectangular plan
- Set flush with sidewalk
- Flat roof with parapet and shallow overhanging eaves
- Symmetrical, rhythmic bay and fenestration pattern
- Extending tower on roof over main entry
- Projecting course spanning building (horizontal)
- Banding around window bays (vertical)
- Smooth stucco sheathing on exterior walls

[982] San Francisco Planning Department, Data for 466 Townsend Street, San Francisco Property Information Map.
[983] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Installation of Vent Hood: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 2. The character and contours of the original large wall openings spanning the ground story of the building remain discernible (though the openings have been in-filled with stucco). The stucco infill, completed prior to 2005, is non-original and not considered character defining. The metal vent hood is attached to noncontributing materials and does not obscure or negatively affect character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 3. Given its utilitarian appearance, the vent hood does not create a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 5. The character of the original large wall openings spanning the ground story of the building remain discernible (though the openings have been in-filled with stucco). The stucco infill, completed prior to 2005, is non-original and not considered character defining. The metal vent hood is attached to noncontributing materials and does not unduly obscure character-defining features or materials.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 9. The vent hood is generally compatible in scale and appearance to the building and does not obscure character-defining features that convey the significance of the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 10. The vent hood is generally compatible in scale and appearance, does not obscure character-defining features, and its removal would not result in any impairment to the building.

Conclusion

The project complies with the SOIS and no Condition of Approval is recommended at this time.

Archaeology and Paleontology

Building alterations at ES-34 were limited to interior improvements or minor exterior non-structural alterations that did not involve ground-disturbing activities. Due to the fact that the alterations were limited to the interior of the building, no effects on archaeological and paleontological resources have occurred.

Transportation and Circulation

ES-34 is immediately contiguous to 460 Townsend Street (ES-33) and is located on the northeast corner of Townsend Street and Sixth Street in the SoMa neighborhood. Before AAU's occupation in 2005, this 3-story building, built in 1920, was used as an internet exchange/data center. AAU currently uses approximately 113,436 gross square feet of space for postsecondary educational institutional use, comprised of classrooms, labs/art studios, an art store, and student and faculty lounges. On a typical day there are approximately 392 students and 65 faculty/staff members at the site, although the capacity allows for more occupants (see the Property Information section, above).

There are two loading docks along Townsend Street, one toward the east and one toward the west side of the building. The loading dock toward the west side of the building is active. The east side loading dock is reported to be used for occasional loading activities and for storing up to two AAU faculty and staff vehicles. There is one main pedestrian entry to the building along Townsend Street and a secondary service entrance near the loading dock at the east side of the building. There is also a gated, secondary entry along Sixth Street used for fire egress. There are three bicycle racks with a total of 20 Class bicycle parking spaces provided in the building (five spaces near ground floor entrance, 10 spaces in a classroom area and five spaces on the third floor). AAU shuttle bus routes (G, H, and I) use the 88-foot-long shuttle-only passenger-loading zone in front of the site. This zone serves both the 466 and 460 Townsend Street sites.

As shown in Table 9, Existing Sites PM Peak Hour Person and Vehicle Trips by Mode, p. 3-27, the postsecondary educational institutional use at this AAU site generates approximately 517 person trips (199 inbound trips and 318 outbound trips) and 84 vehicle trips (30 inbound trips and 54 outbound trips) during the weekday PM peak hour.

Traffic

ES-34 is immediately contiguous to 460 Townsend Street (ES-33). Due to the Caltrain tracks on the south side of Townsend Street, there are no buildings on the south side of the street. The north side of Townsend Street is generally a mix of office and warehouse uses. Townsend Street adjacent to the site has one travel lane and one bike lane in each direction, with on-street parking on both sides of the street. The parking on the south side is 45-degree (back-in) parking. There are no sidewalks along either side of Townsend Street at this location. Muni bus route 10-Townsend runs along Townsend Street, but most of the transit services are in the vicinity of 4th and Townsend streets. AAU shuttle bus routes (H and I) stop at this location, and an additional route (G) was added in the fall semester of 2011. This stop is also a hub stop for AAU shuttle buses.

The existing roadway systems in the vicinity of the AAU site, including roadway designations, number of lanes, and traffic flow directions, are discussed below. The functional designation of these roadways was obtained from the *San Francisco General Plan* and *the Better Streets Plan*.[984,985] Roadways identified under the *Vision Zero San Francisco Two-Year Action Strategy* are also noted.[986]

Bluxome Street is an east-west street that runs between Sixth and Fourth streets. In the vicinity of the AAU site, it has one travel lane in each direction and metered perpendicular parking on the south side of the street. Bluxome Street has low traffic volumes, as it serves mostly residential and office uses along the two-block local street.

Fifth Street is a north-south street/commercial throughway that runs between Market Street and Townsend Street. In the vicinity of the AAU site, it has two travel lanes in each direction and metered parking on both sides of the street. Fifth Street dead ends at King Street, so traffic volume is relatively low to moderate at this location. The *San Francisco General Plan* classifies Fifth Street as a Major Arterial in the CMP Network. Fifth Street is also designated as a High Injury Corridor in the City's Vision Zero network.

Townsend Street is an east-west street/commercial throughway that runs between Eighth Street and The Embarcadero. In the vicinity of the AAU sites, it has one travel lane and a bike lane in each direction with metered parking on both sides of the street. Traffic volumes along Townsend Street are light to moderate.

Sixth Street is a north-south street/commercial throughway that runs discontinuously between Market Street and Townsend Street. In the vicinity of the AAU sites, it has one travel lane in each direction. The *San Francisco General Plan* classifies Sixth Street as a Major Arterial in the CMP Network. Sixth Street is designated as a High Injury Corridor in the City's Vision Zero network.

The postsecondary educational institutional use at ES-34 adds twelve additional vehicle trips to adjacent streets during the PM peak hour (two inbound and ten outbound). Based on this level of additional vehicle traffic, traffic operating conditions in the vicinity have not been substantially

[984] San Francisco Planning Department, *San Francisco General Plan*, Transportation Element, July 1995.
[985] San Francisco Planning Department, *San Francisco Better Streets Plan*, December 2010.
[986] San Francisco Municipal Transportation Agency, *Vision Zero San Francisco Two-Year Action Strategy*, February 2015.

altered as a result of AAU's use of ES-34. Shuttle, parking, and commercial loading circulation is further discussed below.

Transit

The AAU postsecondary educational institutional use at ES-34 generates approximately 262 transit trips during the PM peak hour, 98 trips inbound and 164 trips outbound. Similar to 460 Townsend Street (ES-33), ES-34 is generally served by Muni bus lines 10-Townsend and 47-Van Ness, Caltrain, and the Muni T-Third and N-Judah light rail lines (see Figure 10, p. 4-605). Other buses are located 1.5 blocks away near the Fourth and Townsend streets intersection. These routes provide further connections to Muni light rail and bus service on Market Street. The nearest Muni bus stop to the AAU site, for the 10-Townsend and 47-Van Ness routes, is located at the Townsend Street and Fifth Street intersection. This bus stop does not have a shelter or service information. The AM, midday, and PM frequencies of these lines, as well as the passenger load and capacity utilization at the maximum load point (MLP) during the PM peak hour, are presented in Table 95.

Table 95. 466 Townsend Street – Muni Service Frequencies and Capacity Utilization at Maximum Load Point: Weekday PM Peak Hour

Bus Lines	Route	Frequency of Service (Minutes)			PM Peak Hour Capacity (Outbound)		
		AM Peak	Midday	PM Peak	Peak Hour Load	MLP	PM Peak Hour Capacity Utilization
10 – Townsend	24th and Potrero to Pacific and Van Ness via Pacific, 2nd, and Townsend	10	20	20	153	2nd St/ Townsend St	80%
30 – Stockton	Divisadero and Chestnut to Caltrain Depot via Chestnut, Columbus and 3rd	4.5	4	4	615	Stockton St/ Sutter St	49%
45 – Union-Stockton	Lyon and Union to Market via Union, Stockton, 3rd St and 5th St	8	12	12	260	Stockton St/ Sutter St	82%
47 – Van Ness	Caltrain Depot to Beach via Townsend, Mission, Van Ness and North Point	10	10	10	222	Van Ness Ave/ O'Farrell St	58%

Source: SFMTA, 2015; San Francisco Planning Department Transit Data for Transportation Impact Studies Memorandum (updated May 15, 2015

The 262 PM peak hour transit trips generated by the AAU postsecondary educational institutional use at ES-34 along with the 60 transit trips from the adjacent 460 Townsend Street site (ES-33) are dispersed onto multiple transit routes. As shown in Table 10, Muni Downtown Transit Screenlines – PM Peak Hour Outbound, on p. 3-30, the increased transit demand, in combination with transit trips from other AAU locations (460 Townsend Street [ES-33]), has not made a substantial contribution to the existing transit service in the area. The shuttle stop on Townsend Street is of sufficient size, as further discussed below, to accommodate shuttle service Routes G, H, and I, and is located 600 feet west of the nearest bus stop. Therefore, shuttle service to this AAU site has not substantially conflicted with the operation of transit vehicles along Townsend Street or in the vicinity.

Shuttle

The AAU postsecondary educational institutional use at ES-34 generates approximately 69 shuttle riders during the PM peak hour, 31 riders in the inbound direction and 38 riders in the outbound direction. Shuttle demand is likely higher at different times of the day for this site, depending on class scheduling.

In 2010, the site was served by two shuttle bus routes (H and I), both of which operated every 15 minutes. The total seating capacity at the time for these two routes was 494 in the PM peak hour. Routes H and I operated at 63 and 78 percent capacity, respectively, at the MLP during the PM peak hour in 2010. During the shuttle peak hour, Routes H and I operated at 126 and 130 percent capacity, respectively, at the MLP. MLPs occur at 466 Townsend Street and on Route H and at 79 New Montgomery on Route I. In spring 2015, three shuttle bus routes (G, H, and I) operate with 30-, 20-, and 20-minute headways, respectively, resulting in a total capacity of 300 seats in the PM peak hour, a 40 percent reduction of service as compared to 2010.

Currently (2015), three shuttle bus routes (Routes G, H, and I) use the 88-foot-long shuttle-only passenger loading zone located along the frontage of the site, with a “No Parking Shuttle Bus Zone” sign posted on a pole by the white zone. The hours of operation for the shuttle bus zone are between 7:30 a.m. and 10:30 p.m., Monday through Saturday. It is noted that AAU shuttle routes (G, H, and I) lay over at the white passenger loading zone for up to 15 minutes for rest breaks. These layovers are spaced out so that no more than one shuttle bus lays over at a given time. Based on the frequency of the routes (G, H, and I), one to two shuttles are expected to use the zone at the same time; therefore, the 88-foot length is sufficient in size to accommodate the estimated shuttle demand. Observations during the midday period noted that there were no instances of shuttle buses double parking or stopping within the traffic lane on Townsend Street, and passengers were able to board and alight at ease.[987]

Pedestrian

The AAU postsecondary educational institutional use at ES-34 generates approximately 405 pedestrian trips during the PM peak hour, 74 walking, 262 transit, and 69 shuttle trips. The 69 shuttle walking trips are short in length, from the building entrance to the shuttle zone on Townsend Street in front of the building. Sidewalks along Fifth Street, Townsend Street (along 466 Townsend Street [ES-34]) and Sixth Street are approximately 10 feet wide. The primary pedestrian access to the site is from Townsend Street. Secondary entries are provided along Sixth Street.

As discussed above, the building has two active loading docks on Townsend Street with two 10- and 27-foot-wide curb cuts.[988] There were no indications of overcrowding within the sidewalk areas nor a considerable number of pedestrians standing outside of the AAU site. Sixth Street is designated as

[987] Field observation was made by CHS on Tuesday, July 14, 2015, between 1:00 p.m. and 3:00 p.m.

[988] One loading dock space is used to bring in set-building supplies (i.e., lumber, acting set pieces, etc.) and the other space is used for occasional staff parking and loading activities.

a High Injury Corridor in the City's Vision Zero Improvement Plan. No instances of pedestrian-vehicle conflicts at nearby crosswalk locations were observed.[989] Intersections along Townsend Street at Fifth and Sixth streets are both stop-sign controlled with well-defined crosswalk markings. The 405 pedestrian trips at ES-33 and 93 pedestrian trips for the adjacent 460 Townsend Street site (ES-33) add pedestrian volumes in the area, but are accommodated on the adjacent pedestrian facilities (10-foot-wide sidewalks on Townsend Street).

A recommended Condition of Approval to assess/monitor shuttle service is included below. Improving shuttle service frequency could better meet the demand at ES-34, and students would be less likely to gather or wait for shuttles on sidewalks. Since pedestrian flows on adjacent sidewalks of ES-34 may be intermittently heavy, particularly related to shuttle traffic, a recommended Condition of Approval to monitor pedestrian volumes at the site, particularly student volumes during the peak pedestrian periods, is suggested. If pedestrian traffic is observed to be blocked during any of these periods, then AAU should implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals [similar to NextBus]), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity.

Bicycle

The AAU postsecondary educational institutional use at ES-34 generates 15 bicycle trips during the PM peak hour, six trips in the inbound direction and nine trips in the outbound direction. Bicycle Route 36 is a Class II bicycle facility (striped bike lanes) that runs along Townsend Street, providing direct access to this site. Route 36 connects to bicycle Route 23 on Eighth Street to the west and Route 5 on The Embarcadero to the east. There are a total of three bicycle racks provided throughout this building. One rack is located inside the building near ground floor entrance with five spaces, one rack is also on the ground floor but in a classroom area with 10 spaces, and one rack is installed on the third floor with five spaces, for a total of 20 Class II bicycle parking spaces.[990] The site's 15 PM peak hour bicycle trips have not substantially affected the operation or capacity of bicycle facilities in the area.

This site generates a bicycle parking demand of approximately 22 spaces, which is not fully accommodated with the existing 20 bicycle parking spaces.[991] Given the location of the existing bicycle parking locations, a Condition of Approval is recommended to relocate the bicycle parking spaces to more accessible location with better signage. To serve the site's estimated demand of 22 bicycle parking spaces, a Condition of Approval to provide two additional Class II bicycle parking spaces is also recommended below. No bicycle parking is required under the Planning Code for this site.

[989] Field observation was made by CHS on Thursday, July 16, 2015, between 1:00 p.m. and 3:00 p.m.
[990] Bicycle parking data was provided by AAU and verified by Planning Department staff.
[991] Bicycle parking demand is estimated by dividing the total daily bicycle trips (11.7 times of PM peak hour trips for institutional buildings or 5.8 times of PM peak hour trips for residential buildings) by two to discount a round trip and by four to account for a daily turnover rate.

Loading

The AAU postsecondary educational institutional use at ES-34 generates approximately eleven daily truck trips, which equates to a loading demand of less than one (approximately 0.5 trips) in an average hour or 0.7 trips during the peak demand hour. There are two loading docks along Townsend Street, one toward the east and one toward the west side of the building. One loading dock space is used to bring in set-building supplies (i.e., lumber, acting set pieces, etc.) and the other space is used for occasional staff parking and loading activities. The east side loading dock is reported to be used for occasional loading activities and the storage of up to two AAU faculty and staff vehicles. There is an approximately 64-foot-long freight loading (yellow) zone on the north side of Townsend Street between Sixth and Fifth streets, approximately 400 feet east of the site. Based on field observations during the weekday midday period (1:00 p.m. to 3:00 p.m.) on Wednesday, July 15, 2015, no AAU-related freight/delivery vehicles or related activities occurred within the on-street loading zone, or in adjacent parking spaces. Commercial vehicles making deliveries to the site use the on-street parking or loading spaces in the vicinity. Due to low daily delivery activity related to the postsecondary educational institutional use as noted during site visit and low traffic volumes during weekday midday along Townsend Street, loading demand is accommodated in areas near the AAU site.

Garbage collection at this site occurs on the north side of Townsend Street, next to the service entrance for the site in the thru-way between 460 and 466 Townsend streets. Trash receptacles are placed along the sidewalks at designated areas. Garbage collection along Townsend Street occurs four times a week in the early morning hours.

Parking

The AAU postsecondary educational institutional use at ES-34 generates a parking demand of 29 parking spaces (seven spaces by faculty/staff, one space by visitors, and 21 spaces by commuter students). An on-street parking survey was conducted along streets adjacent to the site during a typical weekday midday period (1:00 p.m. and 3:00 p.m.) on Wednesday, July 15, 2015. Detailed parking inventory, supply, and occupancy information is provided in Appendix TR-J.

The parking study area for the site is the same as that for 601 Brannan Street (ES-31) due to its proximity; thus the on-street and off-street parking survey data for this site are presented in Tables 90 and 91 above under 601 Brannan Street (ES-31). There are a total of 170 on-street parking spaces surrounding these sites. During the survey period, parking occupancy was observed to be high, averaging about 86 percent between 1:00 p.m. and 3:00 p.m. There are eleven public off-street parking facilities with a total of 1,838 parking spaces. Parking occupancy at off-street parking facilities was not observed. The academic use at ES-34 with a demand of 29 parking spaces, in combination with the three spaces in demand from the 460 Townsend Street (ES-33) site, is met with nearby on- or off-street parking facilities. However, these spaces are limited in amount and the AAU use at this building could potentially add to the overall parking demand of the area. A recommended Condition of Approval applicable to all AAU existing sites, for AAU to implement Transportation Demand Management strategies, is summarized in Section 3.4.5 (p. 3-28) and detailed in Appendix TDM at the end of this Memorandum; this Condition of Approval is intended to reduce staff and faculty vehicle trips and would also reduce parking demand.

Emergency Vehicle Access

San Francisco Fire Department Station #1 (935 Folsom Street) is the closest station to the AAU site, approximately 0.6 miles north of the site. From the station, vehicles are able to access the AAU site via Fifth and Townsend streets and would be able to park along Townsend Street.

Existing Constraints and Proposed Conditions of Approval

Based on the above discussion, constraints on the AAU use of ES-34 include a potential shuttle service deficiency, pedestrian traffic, and bicycle parking that is not well located. To address these constraints, the following conditions are recommended for consideration by decision makers:

Recommended Condition of Approval, ES-34: TR-1, Shuttle Demand and Capacity. Consistent with AAU Shuttle Policy, AAU shall continue to assess, adjust, and monitor the shuttle bus capacity for its shuttle routes (G, H, and I), potentially increasing frequency or capacity to meet the measured demand of this and other academic and residential buildings along the route.

Recommended Condition of Approval, ES-34: TR-2, AAU Pedestrian Traffic. Since pedestrian flows on adjacent sidewalks of the 466 Townsend Street site may be intermittently heavy, AAU shall monitor pedestrian volumes and queuing on the sidewalk at the site, particularly student volumes during the peak pedestrian periods. If pedestrian traffic is observed to be blocked during any of these periods, AAU shall implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals [similar to NextBus]), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity, taking into account possible operational and safety considerations.

Recommended Condition of Approval, ES-34: TR-3, Bicycle Parking. AAU shall relocate the existing bicycle parking spaces to a more convenient location, such as the service alley between the two Townsend Street buildings and the ground floors of the building, taking safety conditions into consideration, and add signage to direct students to the bicycle parking location. Bicycle parking shall be consistent with San Francisco Planning Department guidance.

Recommended Condition of Approval, ES-34: TR-4 Class II Bicycle Parking. AAU shall provide at least 2 additional Class II bicycle parking spaces along Townsend Street. The location of additional Class II bicycle parking spaces shall be coordinated with SFMTA.

Noise

A summary of the methodology used to analyze noise effects and a discussion of estimated construction noise and vibration effects are presented in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-47. The methodology and construction effects are applicable to all of the AAU existing sites, and have not been repeated here.

The 466 Townsend Street site (ES-34) is immediately contiguous to 460 Townsend Street and is located on the northeast corner of Townsend Street and 6th Street in the South of Market neighborhood. Before AAU's occupation in 2005, this building was used as offices and as a storage facility. AAU's current institutional use comprises classrooms, labs/studios, office, and an art store. AAU shuttle routes G, H, and I serve ES-34. According to the San Francisco Transportation Noise

Map,[992] the existing traffic noise level near ES-34 from vehicular traffic along Townsend Street, 6th Street, and the elevated freeway ramps was approximately 75 dBA L_{dn} in 2008, indicating a noisy commercial environment. However, college classrooms and offices are not considered protected sensitive land uses under the *San Francisco General Plan*.

AAU operations at ES-34 have resulted in the installation of twelve rooftop condenser units. This rooftop-mounted mechanical equipment could generate noise levels as high as 51 dBA L_{eq} from a distance of 100 feet.[993] As previously discussed in Chapter 3, Combined and Cumulative Analysis, on pp. 3-46 to 3-52, exterior noise levels of 70 dBA L_{eq} and 60 dBA L_{eq} could result in interior noise levels exceeding the City's daytime and nighttime Noise Ordinance, respectively.

Assuming an attenuation rate of 6 dB per doubling of distance and noise level of 51 dBA L_{eq} from a distance of 100 feet, a residential building located approximately 11 and 37 feet would be exposed to an exterior noise level that would exceed the City's nighttime and daytime noise standard, respectively. Since the nearest sensitive receptors are located over 37 feet away from the rooftop mechanical equipment, it is expected that operational noise generated by the AAU site's rooftop mechanical systems would not meet or exceed the noise limits established in the City's noise ordinance for fixed noise sources.

The noise levels generated by student activity and increased shuttle bus operation would have been compatible with a typical urban environment when AAU occupied the building and remain compatible. Any noise increases from shuttle bus operations (backup beepers) would have been and are intermittent and minor. The activities within the ES-34 building would have been and continue to be required to comply with the City's Noise Ordinance with respect to music and/or entertainment or noise from machines or devices, as well as fixed noise sources at the site; therefore the change in use at ES-34 would not have exceeded the standards established by the City for effects on sensitive receptors near ES-34.

Vehicular traffic noise at ES-34 was calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) based on a daily round trip rate of 840 trips per day.[994] According to the San Francisco Transportation Noise Map,[995] the existing traffic noise level near ES-34 from vehicular traffic along Townsend Street and the freeway ramps was approximately 75 dBA L_{dn} in 2008. The results of the analysis show that vehicle trips generated by improvements and occupation of ES-34 contribute approximately 52.5 dBA L_{dn} to local traffic noise levels. When the ES-34 contribution is added to the mapped existing noise level, the combined traffic noise level increases over the mapped existing noise level by less than 1 dBA, which is not an audible increment over the existing non-AAU-related ambient traffic noise. Permanent increases in ambient noise levels of less than 3 dBA are generally not noticeable outside of lab conditions. Therefore, vehicular traffic generated by ES-34 has not substantially increased vehicular traffic noise in the vicinity.

---

[992] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf
[993] Puron, 2005. 48PG03-28 Product Data. 2005 p. 10 - 11.
[994] CHS Consulting Group, *AAU ESTM Transportation Section Draft #1A*, January 2016.
[995] San Francisco Department of Public Health, *Transportation Noise Map 2008*. Accessed at https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/TransitNoiseMap.pdf

Air Quality

A summary of the methodology used to analyze construction air emissions and a discussion of estimated construction emissions are found under Combined Analysis of Air Quality in Chapter 3, Combined and Cumulative Analysis, on pp. 3-52 to 3-55. The methodology and results are applicable to all of the AAU existing sites, and have not been repeated here.

Long-term regional emissions of criteria air pollutants and precursors associated with the operation of institutional facilities (classrooms, labs/art studios, an art store, and student and faculty lounges) at ES-34, including mobile- and area-sources emissions, were quantified using the CalEEMod computer model. The facility is assumed to have been operational in 2005, when AAU occupied the building. Area sources were estimated based on an 113,436-square-foot "Junior College" land use designation in CalEEMod, and mobile-source emissions were based on a daily vehicle trip rate of 840 round trips per day. An operational year of 2005 was assumed for ES-34, the year AAU occupied the building. There is an onsite emergency backup generator at ES-34. Table 96 presents the estimated long-term operational emissions of ROG, NOx, $PM_{10,}$ and PM2.5 from ES-34, which are all shown to be below BAAQMD's daily and annual significance thresholds.

The discussion of Health Risks in the Air Quality subsection of Chapter 3, Combined and Cumulative Analysis, on pp. 3-55 to 3-57, explains that three of the AAU existing sites are located in the Air Pollution Exposure Zone. ES-34 is not one of those sites; therefore, AAU occupation of ES-34 has not resulted in increased health risks for nearby sensitive receptors.

Table 96. 466 Townsend Street (ES-34) Operational Emissions

Source	Average Daily (pounds/day) [1]				Maximum Annual (tons/year) [1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	3.35	2.47	0.07	0.07	0.61	0.45	0.01	0.01
Energy	0.09	0.83	0.06	0.06	0.02	0.15	0.01	0.01
Mobile	8.01	15.04	4.44	1.51	1.41	2.82	0.78	0.27
Total Emissions	11.46	18.33	4.57	1.65	2.03	3.42	0.80	0.29
BAAQMD Thresholds of Significance	54	54	82	54	10	10	15	10
Exceed Threshold?	No	No	No	No	No	No	No	No

Notes:
[1] Emissions were estimated using the CalEEMod computer model. Boiler emissions were estimated using emission factors obtained from AP-42. Assumptions and results can be found in Appendix AQ.

Source: ESA, 2016.

Greenhouse Gas Emissions

New development and renovations/alterations for private and municipal projects are required to comply with San Francisco's ordinances that reduce greenhouse gas (GHG) emissions, as stipulated in the City's *Strategies to Address Greenhouse Gas Emissions*. San Francisco's *Strategies to Address Greenhouse Gas Emissions* have proven effective as San Francisco's GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded the state's GHG reduction law and policy goals.

Applicable requirements for private projects are shown in the City's GHG Compliance Checklist. A complete GHG Compliance Checklist has been prepared for ES-34 for the change in use and associated tenant improvements (Appendix GHG). Of the GHG Checklist requirements, AAU currently does not comply with the Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A) and required bicycle parking configuration in accordance with Planning Code Section 155.1-155.4. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection, if applicable, during the building review process. Compliance with the bicycle parking requirements is presented below as a recommended Condition of Approval.

Compliance with the Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288) and CalGreen Section 5.504.4 (low-emitting adhesives, sealants, caulks, pants, coatings, composite wood, and flooring), which are applicable to tenant improvements and construction that have occurred, is unknown. However, AAU's alterations at ES-34 would have produced minimal construction debris. In addition, the San Francisco Existing Commercial Buildings Energy Performance Ordinance requires owners of non-residential buildings with greater than or equal to 10,000 square feet that are heated or cooled to conduct energy efficiency audits as well as annually measure and disclose energy performance. Compliance with the Energy Performance Ordinance is unknown. Insofar as information is available on past alterations, inspections, and audits, compliance with the Construction and Demolition Debris Recovery Ordinance, CalGreen Section 5.504.4, and the Energy Performance Ordinance would be verified by the Department of Building Inspection, if applicable, during the building permit review process. However, AAU would be required to comply with each of these ordinances in the future.

Recommended Condition of Approval, ES-34: GHG-1, Compliance with the Bicycle Parking Requirements. AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Sections 155.1 - 155.4.

With the implementation of requirements listed in the GHG Compliance Checklist and the above recommended Condition of Approval, the effects on GHG emissions from the change in use has been insubstantial.

Wind and Shadow

The tenant improvements at ES-34 did not involve any new development or additions that changed the height or bulk of the existing structure, and therefore did not alter the wind environment or create new shadow in a manner that substantially affects nearby pedestrian areas, outdoor recreational facilities or other public areas. Therefore, no substantial effects on wind or shadow have occurred from the change in use at ES-34.

Recreation

As shown on Figure 4, p. 3-63, 466 Townsend Street (ES-34) is facility located within 0.25 mile of one San Francisco Recreation and Park Department (RPD) facility: Mission Creek Park. Located along the Mission Bay channel, Mission Creek Park features grass lawns, a tree-lined promenade, an outdoor amphitheater, sports courts, a boat launch, and an off-leash dog play area.[996] Other publicly owned parks are within a 0.5-mile distance of ES-34, including Victoria Manalo Draves Park and Gene Friend Recreation Center.

As described in Population and Housing on pp. 4-652 – 4-653, the capacity of ES-34 is 740 occupants. The change in use from an internet services exchange to an educational services use at ES-34 does not represent a substantial change in the daytime population of the area. The change in population is considered a minimal increase compared to the service population for the Mission Creek Park and other nearby facilities. In addition, AAU student and faculty access to recreational facilities is augmented AAU private recreation facilities at 1069 Pine Street (ES-16), 620 Sutter Street (ES-20), 601 Brannan Street (ES-31), and other university-run lounges and café areas. No substantial effect on recreation has occurred as a result of the change in use.

Utilities and Service Systems

Water Supply

ES-34 receives water from the San Francisco Public Utilities Commission (SFPUC) water supply facilities. The site likely had minimal water service and consumption associated with the previous industrial/internet services exchange land use prior to AAU occupancy. Therefore, the change in use does not represent new water or wastewater demand. Presuming the subject site was vacant prior to AAU tenancy, the change in use would still not substantially affect the SFPUC's water supply, as it has been concluded that sufficient water is available to serve existing customers and planned future uses.[997] No expansion of SFPUC water supply or conveyance facilities has occurred due to the change in use at ES-34. Compliance with the Commercial Water Conservation Ordinance would be initiated by the Department of Building Inspection during the building review process.

With the implementation of San Francisco's Commercial Water Conservation Ordinance, no substantial effect on the water supply would occur from the change in use.

Wastewater

The change in use would not alter demand for stormwater or wastewater conveyance and treatment facilities because the site is completely covered with impervious surfaces and, as an existing building, is accounted for in existing and planned wastewater facilities. Correspondingly, projected population growth associated with the change in use, if any, has incrementally increased wastewater flows from the site; however, the flows have been accommodated by existing wastewater treatment facilities. The SFPUC's Sewer System Improvement Program has improved the reliability and efficiency of the wastewater system, and systemwide wastewater improvements as well as long-term projects have

[996] Mission Bay Parks, Mission Creek Park. Available online at: http://missionbayparks.com/mission-creek-park/. Accessed on January 15, 2016.
[997] San Francisco Public Utilities Commission (SFPUC), 2013 Water Availability Study for the City and County of San Francisco, p. 1, May 2013. Available online at http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. Accessed on February 2, 2016.

ensured the adequacy of sewage collection and treatment services to meet expected demand in San Francisco.[998] No substantial effect on wastewater has occurred from the change in use.

Solid Waste

Solid waste services are provided by Norcal Waste Systems and its subsidiary, Recology. The change in use has incrementally increased solid waste generation at the site. Nevertheless, the site is subject to federal, state, and local regulations associated with the reduction in operational solid waste including the City's Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash. Construction debris associated with alterations at ES-34 were minimal. San Francisco currently exceeds its trash diversion goals of 75 percent and is in the process of implementing new strategies to meet its zero waste goal by 2020.[999] In addition, the City's landfill at Recology Hay Road in Solano County has sufficient capacity accommodate the site's and City's solid waste disposal needs.[1000] No substantial effect on solid waste has occurred as a result of the change in use by AAU.

Public Services

Police

ES-34 is located within the Southern District of the San Francisco Police Department (SFPD). The Southern District Police Station is located at 1251 Third Street. The district covers approximately 2.9 square miles with a daily population ranging from 26,145 to over 300,000. In 2013 (the most recent data available), there were 1,371 crimes against persons (e.g., homicide, rape, robbery, and aggravated assault) and 9,894 property crimes (e.g., burglary, vehicle theft, arson, and theft) in the Southern District.[1001] Please refer to Section 3.3.12, Public Services, for additional information about the SFPD.

Police services are augmented by AAU's Department of Campus Safety. Campus Safety staff are trained to respond to the needs of University students, faculty, and administration. Please refer to Section 3.3.12, Public Services, for additional information about AAU's Department of Campus Safety.

466 Townsend Street has a capacity of 740 occupants (675 students and 65 faculty and staff). The change in use from industrial/internet services exchange to educational services would not represent a substantial change in the daytime population of the area. Therefore, the change in use would have resulted in minimal additional police protection demand. In addition, Department of Campus Safety

[998] SFPUC, Sewer System Improvement Program Fact Sheet, February 2016. Available online at http://sfwater.org/Modules/ShowDocument.aspx?documentID=4220. Accessed on February 2, 2016.

[999] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america. Accessed February 9, 2016.

[1000] CalRecycle, Facility/Site Summary Details: Recology Hay Road (48-AA-0002), Available online at http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/. Accessed on February 2, 2016.

[1001] San Francisco Police Department, Annual Report 2013, p. 117. Available at https://dl.dropboxusercontent.com/u/76892345/Annual%20Reports/2013%20Annual%20Report.pdf. Accessed on October 15, 2015.

staff augments the availability of safety services and could reduce the need for increased SFPD services and any additional demand that could be associated with the change in use. No substantial effect on police protection has occurred as a result of the change in use at ES-34.

Fire and Emergency Services

ES-34 is located within 2,500 feet of Fire Station No. 8 (36 Bluxome Street) and Fire Station No. 1 (935 Folsom Street). Fire Station No. 1 consists of a single fire engine, truck, and rescue squad. Fire Station No. 8 consists of a single fire engine and truck.[1002] Please refer to Section 3.3.12, Public Services, for additional information about the SFFD.

In 2011, Fire Station No. 1 responded to 3,787 non-emergency calls with an average response time of 8:41 minutes, with 90 percent of non-emergency calls responded to under 14:47 minutes. Fire Station No. 1 responded to 11,299 emergency calls with an average response time of 3:25 minutes, with 90 percent of emergency calls responded to under 4:48 minutes. In 2011, Fire Station No. 8 responded to 857 non-emergency calls with an average response time of 9:51 minutes, with 90 percent of non-emergency calls responded to under 16:56 minutes. Fire Station No. 8 responded to 2,455 emergency calls with an average response time of 3:38 minutes, with 90 percent of emergency calls responded to under 4:55 minutes.[1003]

The goal for transport units for a Code 3 (emergency), which is a potentially life-threatening incident, is to arrive on scene within five minutes of dispatch 90 percent of the time. This goal complies with the National Fire Protection Association 1710 Standard. Both fire stations near ES-34 meet the Citywide emergency transport goals.

As described above on pp. 4-652 – 4-653, the change in use from industrial/internet services exchange to educational services would not represent a substantial change in the daytime population of the area. Therefore, additional fire and emergency protection demand would be minimal. AAU has installed life safety upgrades and installed a new fire sprinkler and fire alarm system, improving fire safety at the property. No measurable changes in response times have occurred since the change in use. No substantial effect on fire or emergency medical services has occurred as a result of the change in use at ES-34.

Libraries

The nearest public library to ES-34 is the newly constructed Mission Bay Library, which is 7,500 square feet and serves a population of 14,163. The Mission Bay Library had 128,536 visits in 2014.[1004] Please refer to Section 3.3.12, Public Services, for additional information about the San Francisco Public Library as well as AAU's private library for use by its students and faculty, which augments the public library's services.

[1002] San Francisco Fire Department, Annual Report 2012–2013 (FY). Available at http://www.sf-fire.org/modules/showdocument.aspx?documentid=3584. Accessed on October 22, 2015.

[1003] San Francisco Planning Department, Academy of Art University Project Draft EIR, pp. 4.13-4 - 4.13-5, February 2015.

[1004] San Francisco Public Library, Statistics by Location FY 2014-2015. Available at http://sfpl.org/pdf/about/administration/statistics-reports/statisticsbylocation2014-15annual.pdf. Accessed on October 22, 2015.

As described above on p. 4-652 – 4-653, the change in use from industrial/internet services exchange to educational services would not represent a substantial change in the daytime population of the area. The change in population, if any, would be minimal compared to the service population for the Mission Bay and Main Libraries. Any new resident population as a result of the change in use is dispersed throughout the City and would use their local public library branch. In addition, public library use would be augmented by AAU's private library system provided to AAU students for research, study, and programs. Therefore, no substantial effect on library services has occurred as a result of the change in use at ES-34.

Schools

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. Please refer to Section 3.3.12, Public Services, for additional information about SFUSD.

The change in use under AAU as an educational services use would not contribute to additional demand to SFUSD. Overall demand for schools from faculty/staff at the existing sites is discussed in the combined discussion in Chapter 3 (it is assumed that AAU students do not have children). For the reasons stated above, no substantial effect on schools has resulted from the change in use at ES-34.

Biological Resources

ES-34 is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the site. There are no known candidate, sensitive, or special-status species located at or near ES-34. ES-34 is not in an Urban Bird Refuge. No known landmark, significant, or street trees were removed during tenant improvements or renovations. Although birds may nest in nearby street trees or in shrubs on or near the property, no major plantings have been removed as part of improvements or renovation of the site. Therefore, no substantial effect on biological resources has occurred as a result of the change in use at ES-34.

Geology and Soils

Soils near ES-34 are classified as urban land fill associated with debris from the 1906 Earthquake and Fire. [1005] The fill soil layer reportedly varies in thickness and extends into initial water bearing soil. The nearest water body, San Francisco Bay, is located 0.25 miles to the southeast. As such, the depth to groundwater is 5 to 8 feet below ground surface.[1006] Because building alterations undertaken by AAU were all interior, no change in topography or erosion has occurred from the change in use.

The entire Bay Area is susceptible to ground shaking from earthquakes. Ground-shaking intensity at ES-34 would be violent during a magnitude 7.2 earthquake and strong during a 6.5 magnitude

[1005] EMG, Phase I Environmental Site Assessment for 466 Townsend Street, December 2004.
[1006] EMG, Phase I Environmental Site Assessment for 466 Townsend Street, December 2004.

earthquake originating from the San Andrea Fault and Hayward Fault, respectively.[1007, 1008] ES-34 is located within a liquefaction zone.[1009] Buildings that are composed of unreinforced masonry, have a first floor or basement "soft story," or have not undergone seismic retrofitting in compliance with San Francisco Building Code regulations, are at an increased risk of structural failure. ES-34 is a reinforced concrete warehouse that underwent structural seismic upgrades in 2000 by a previous owner.[1010] Although the building could remain vulnerable during an earthquake, the building alterations carried out after the change in use from industrial/internet services exchange to an educational services would not alter the building's performance during a ground-shaking event.

Hydrology and Water Quality

The building alterations associated with the change in use at ES-34 have not substantially degraded water quality, because alterations were limited to interior and routine exterior modifications (e.g., installation of signage, painting, windows and a metal vent hood). Regardless, wastewater and stormwater associated with the change in use and subsequent building alterations would have flowed into the City's combined stormwater and sewer system and were treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. Therefore, the change in use did not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.

The site is located on previously disturbed land that is covered by an existing building. Tenant improvements have not changed the amount of impervious surface or drainage patterns at the site. Therefore, there has been no substantial effect on the quality or rate of stormwater that flows into the City's combined sewer system.

ES-34 is not located within a 100-year flood zone, as delineated by the Federal Emergency Management Agency (FEMA). Sea level rise inundation maps modeled by the SFPUC indicate that the site would not be inundated with a water level rise of approximately 12 inches, which is expected by 2050, even when the effects of 100-year storm surge are considered.[1011] In addition, the site would not be inundated with 36 inches of water level rise which is expected by 2100; however, when the effects of a 25-year storm surge are considered under this scenario, portions of the building could be temporarily inundated at depths of 4–6 feet.[1012] The flooding scenario assumes existing topographic conditions and no site-specific or area-wide flood protection measures. ES-34 is not located in area that is vulnerable to tsunami risk.

[1007] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 7.2 Earthquake on the San Andreas Fault, Map 2, p. 10. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[1008] San Francisco Planning Department, *General Plan* Community Safety Element, Ground Shaking Intensity Magnitude 6.5 Earthquake on the Hayward Fault, Map 3, p. 11. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[1009] San Francisco Planning Department, *General Plan* Community Safety Element, Seismic Hazards Zone San Francisco 2012, Map 4, p. 13. Available online at http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf. Accessed on January 27, 2016.

[1010] Permit #2000002101494 (seismic upgrades).

[1011] San Francisco Water Power Sewer, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum* and associated maps, June 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.

[1012] Ibid.

Although flooding could occur, the degree is unknown and no housing occurs on the site. There are no aspects of the change in use or building alterations that have changed flood potential or building performance at the site because no new structures have been built. Further, the existing building would have been exposed to sea level rise and tsunami risk regardless of AAU's change in use.

For the reasons stated above, no substantial effect on hydrology or water quality has occurred as a result of the change in use at ES-34.

Hazards and Hazardous Materials

The Phase I Environmental Site Assessment (ESA) prepared for ES-34 did not identify the presence of underground storage tanks (USTs). Previous building uses involved the use of hazardous materials including diesel fuel, lubricating oil, paint, batteries, and routine janitorial and maintenance supplies. Nevertheless, the building alterations undertaken at the site by AAU did not involve any earth movement; thus, no buried hazardous materials could have been exposed after the change in use.

The date of the building's construction, 1920, suggests that asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) may be present or have been present at the property. Suspected ACMs were observed during the site visit for the ESA. In addition, fluorescent lights, which may contain small quantities of PCBs if they were manufactured before 1978, were present throughout the building, although there is no evidence of damage or leaks. No peeling paint was detected.[1013] Prior to building alterations, materials were tested for ACM and LBP. No ACMs were detected, while some LBP was discovered on surfaces throughout the building.[1014] Building alterations at the existing site may have disturbed or exposed ACM, LBP, PCBs, or other hazardous building materials; however, it is unknown given that tenant improvements were completed at this site with and without the required building permits. The materials require special handling and disposal procedures that may not have been followed. As a result, it cannot be determined if an effect on human health or the environment occurred from hazardous building materials as a result of the change in use.

AAU currently uses ES-34 for classrooms, labs/art studios, an art store, and student and faculty lounges. Hazardous materials that are used, stored, and disposed of at ES-34 include paints, lubricants, glaze, lubricant, degreaser, oil, paint thinner, cleaners, and wood stainer associated with a postsecondary educational institutional use.[1015] These products are stored in hazardous materials cabinets; after use they are deposited into hazardous waste drums and disposed of by Brittell Environmental.[1016] The AAU facility is regulated by the U.S. Environmental Protection Agency and San Francisco Department of Public Health (SFDPH), and is responsible for complying with San Francisco Health Code Articles 21 and 22. ES-34 is enrolled in the SFDPH Hazardous Materials Unified Program Agency (HMUPA) Program.[1017] Article 21 requires businesses that handle and store hazardous materials to keep a current certificate of registration and implement a Hazardous Materials Business Plan. Article 22 authorizes the SFDPH HMUPA to implement and enforce requirements of

[1013] EMG, Phase I Environmental Site Assessment for 466 Townsend Street, December 2004.
[1014] RGA Environmental, Inc., Revised Limited Asbestos and Lead Survey Report, Academy of Art University, 466 Townsend Street, July 27, 2010.
[1015] Academy of Art, Hazardous Materials Inventory List for 466 Townsend Street, August 6, 2015.
[1016] Academy of Art, Hazardous Materials Inventory List for 466 Townsend Street, August 6, 2015.
[1017] Permit numbers: EPA# CAR000169573; CERS# 10061524.

the California Hazardous Waste Control Act, which includes the proper storage, handling, and disposal of hazardous materials. ES-34 must be compliant with HMBP and HMUPA requirements, and the SFDPH and SFFD inspect ES-34 to ensure compliance with applicable regulations. As the previous use of the building was wholesale, hazardous materials may have increased as a result of the change in use. AAU compliance with applicable regulations, as described above, would minimize any risk associated with hazards and hazardous materials; therefore, the effects are not considered substantial.

Mineral and Energy Resources

There are no known mineral resources or designated locally important mineral resource recovery sites within the City. Therefore, no effects have occurred on mineral resources or mineral resource recovery sites as a result of the change in use of ES-34.

Tenant improvements at ES-34 associated with the conversion of data center/telecommunications space to AAU use did not require large amounts of energy, fuel, or water, nor were they atypical for normal renovation projects within San Francisco. AAU's compliance with all the requirements listed in the City's GHG Compliance Checklist is discussed in Greenhouse Gas Emissions, pp. 4-666 – 4-467. The GHG Compliance Checklist includes the City's Commercial Water Conservation Ordinance, which avoids water and energy waste. In addition, AAU's compliance with the City's Commuter Benefits Ordinance, Emergency Ride Home Program, Energy Performance Ordinance, Light Pollution Reduction Ordinance, and other requirements ensures reductions in fuel and energy consumption associated with AAU's change in use.[1018] With the implementation of applicable requirements listed in the GHG Compliance Checklist for ES-34, no excessive or wasteful consumption of fuel, water, or energy resources has or would occur from the change in use.

As discussed in Transportation and Traffic, AAU provides shuttle service at ES-34. This reduces the number of trips by private car that could occur and, consequently, the amount of fuel that could be consumed.

For these reasons, the change in use at ES-34 has not resulted in the use of large amounts of energy, fuel, or water, or in the use of these resources in a wasteful manner.

Therefore, the change in use at ES-34 has not had a substantial effect on mineral and energy resources.

Agricultural and Forest Resources

ES-34 is designated "Urban and Built-up Land" by the California Department of Conservation's Farmland Mapping and Monitoring Program.[1019] The site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance, nor are there areas under Williamson Act contract. No forest land occurs on the site and the site is not zoned for agricultural

[1018] San Francisco Planning Department, Compliance Checklist Table for Greenhouse Gas Analysis, 466 Townsend Street, March 4, 2016.
[1019] California Department of Conservation, Regional Urbanized Maps, San Francisco Bay Area Important Farmland, 2012. Available online at: http://www.conservation.ca.gov/dlrp/fmmp/trends. Accessed on April 20, 2016.

or forest land use. Therefore, the change in use at ES-34 has had no substantial effects on agriculture or forest resources.

This page intentionally left blank

4.3. ARTICLE 10 OR ARTICLE 11 BUILDINGS

Alterations to Significant or Contributory buildings, City Landmarks, and buildings within Conservation and Historic Districts require a historic resource evaluation. Ten existing AAU properties are evaluated for effects to historic resources and require an Article 10 or 11 approval, including a Certificate of Appropriateness (COA) or Permit to Alter (PTA). Of these ten Article 10 or Article 11 buildings, five also require building permit, Conditional Use (CU) authorizations, legislative amendments, or all three, and are reviewed above in Section 4.2, Individual Site Assessment for all environmental topics: ES-20, 620 Sutter Street; ES-23, 491 Post Street; ES-27, 77 New Montgomery Street; ES-28, 180 New Montgomery Street; and ES-30, 58-60 Federal Street.

The remaining five buildings only require review by the Historic Preservation Commission for COAs or PTAs in relation to their historic architectural resources. These five are: ES-19, 680-688 Sutter Street; ES-21, 655 Sutter Street; ES-22, 625-629 Sutter Street; ES-25, 540 Powell Street; and ES-26, 410 Bush Street. As with other existing AAU sites, physical alterations to these existing buildings have been made as part of minor tenant improvements, and the effect of such improvements on the integrity of these buildings as historic resources is discussed below.

This page intentionally left blank.

4.3.1. 680 Sutter Street (ES-19)

Property Information

The 680 Sutter Street existing site (ES-19) is also called the "Edgar Degas Apartments" by the Academy of Art University (AAU).[1020] ES-19 is a 15,996-square-foot, six-story building constructed in 1918, and located on Sutter Street between Taylor and Mason streets in the Downtown/Civic Center neighborhood.[1021] Used as student housing, the building has a capacity of 28 group-housing units with 67 beds. The building also has a manager's office, a recreation room, and a courtyard. The site is Lot 004 in Assessor's Block 018.

Prior to AAU occupation in 1996, the building was owned by Roy Christie and used as multifamily residential apartments.[1022] The building has five floors above a ground-floor entryway level. AAU occupied the property in 1996 and currently uses the space for student apartments. The nearest AAU shuttle stop is located in front of 620 Sutter Street (ES-20), located on the same block and to the east of ES-19. The ES-20 shuttle stop is served by AAU shuttle bus routes D, E, G, H, I, and the Sutter Express.

ES-19 is in the C-3-G (Downtown General) Zoning District, a district having a variety of uses with Citywide functions. Single room occupancy housing and student housing are principally permitted uses in this district, as are institutional and retail sales uses. Hotel and motel uses require conditional use (CU) authorization. ES-19 is located in a 160-F height and bulk district.

Tenant Improvements and Renovations

AAU replaced a concrete deck fire escape with steel in 1996 and later remodeled a dry standpipe used in the building's fire suppression system in 2007. AAU repaired a roof soffit due to dry rot in 2005 and later replaced the roof in 2012. AAU performed various interior renovations to garbage shafts in 2010, and kitchens without building permit 2010 and 2012. AAU installed a projecting wall sign in 1983 and later removed the wall sign in 2010 with installation hardware/brackets left in place and painted over. AAU added an awning over the residential entry without a building permit in 2008. AAU replaced large arched windows with aluminum slider on the ground level in 1986.[1023] AAU replaced windows on the interior courtyard/west elevation (vinyl double-hung) without benefit of permit.[1024]

[1020] *2011 Institutional Master Plan*, p. 99.

[1021] Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.

[1022] *2011 IMP*, p. 99.

[1023] Building Permits obtained for the improvements and renovations at ES-19 are: BPA #9622494 (fire escape), #9707396 (dry standpipe), #200511158167 (soffit), #201212105826 (roof), #201201051753 and #201009070317 and #201201051753 (kitchens, permit never issued), #201010293992 (garbage shaft), #8302267 and #201003319388 (sign and sign removal), #200804089060 (awning, permit never issued), and #8600359 (windows).

[1024] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Required Project Approvals

A Major Permit to Alter (PTA) is required under San Francisco Planning Code (Planning Code) Article 11 to legalize or modify past building alterations performed without benefit of permit.

Building Description

The mid-rise apartment building at 680 Sutter Street (ES-19) was constructed in 1918. The building has an irregular plan with a short, recessed eastern wing and an interior open courtyard on the western elevation. A small open area is located at the rear of the property and the building is set flush to the sidewalk. Set on a rectangular, sloped lot the building's primary elevation fronts Sutter Street. The distinctive building was constructed in the Swiss Chalet Bungalow style and features reinforced concrete construction with a stucco façade. The six-story building is capped with a red clay tile, front gable roof with ornate brackets and exposed decorative rafter ends on the primary wing, while a flat roof with no eave tops the rear wing.

The first story on the primary wing features a non-original main entry with an arched transom and an arched window to the left, both with decorative keystones. Above the first floor is a projecting cornice line. Projecting bays with pairs of rectangular windows are located above the cornice on the second through fifth story with a centered fire escape stair. Centered under the gable is a large escutcheon. On the recessed eastern bay of the primarily elevation is a large wood door with glass lights and an ornate stone surround providing access to the residential units upstairs. A brick wall separates the entry way from the neighboring parking lot. The entry has been modified with the addition of a security gate and long awning, making the residential entry less visible from the street. Stacked above the residential entry are bay windows with a defining cornice line above and below the sixth story bay window. Window types visible on this elevation are original wood multi-light casement windows, and non-original vinyl double-hung, fixed windows and aluminum sliders.

Secondary elevations are visible on the north, east, and west elevations. The east elevation comprises two sections. The southern section has a column of the same projecting paired rectangular windows seen on the primary elevation. Adjacent to the projecting windows are two columns of single, rectangular windows, a design element that is replicated on the northern section of the east elevation. A smooth stucco finish on the southern section is present, while on the northern section board-formed concrete is visible underneath the stucco. The north elevation is divided into three bays with horizontal bands separating each story. The west and east bays have pairs of windows while the center bay has a single window. The west elevation is only visible from the street where it extends above the adjoining property. Board-formed concrete is visible as is one small window. Used throughout the secondary elevations are vinyl single-hung, wood multi-light casement, and fixed windows used in a variety of configurations.

The residential entry leads to a small lobby featuring decorative pilasters, marble floors, and a vaulted ceiling with decorative molding. A decorative railing and a marble fireplace are also present on the first floor. The building's upper floors have short hallways along an open, central courtyard. Original doors, frames, decorative picture rails, and base moldings are extant through the upper floors. The non-original commercial entry off Sutter Street, leads to a small office space that features a short interior stairway and open space bordered by individual rooms (for representative photographs refer to Photographs 149–150).

Photograph 148. 680 Sutter Street.

Photograph 149. 680 Sutter Street, perspective of the north elevation.

Photograph 150. Interior lobby of subject property.

Site History

In 1918, Conrad Alfred Meussdoffer constructed 680 Sutter Street for I. Goodfriend. Although little information was found about I. Goodfriend, he is presumed to be Isidor Goodfriend, the president and manager of the Goodfriend Hotel located on 245 Powell Street.[1025]

A San Francisco native, Meussdoffer began his career at the architectural firm of Salfield & Kohlberg in 1892.[1026] Three years later, in 1895, he partnered with Victor de Prosse before opening his own firm two years later in 1897. Early in his career, Meussdoffer designed a number of single-family residences in the Pacific Heights area, including 3016 Clay Street (1897), 3051 Clay Street (1902), 3320 Jackson Street (1906), and a pair of flats at 3353 and 3355 Jackson Street (1906). Meussdoffer later moved toward multi-family residences with some of his designs including 1925 Gough Street (1906), 2145 Franklin Street (1917), and 2100 Jackson (1923) among others.

After 680 Sutter was completed in 1918, the building changed ownership frequently. Goodfriend only owned the building through 1924, at which time it transferred to Ralph McLeran.[1027] T. Fahrenkrog acquired the building by 1934 but sold it that same year to the Panama Realty Company.[1028] Between 1935 and 1962, the building permits show several names listed under the owner or leasee including Hale Bros. Realty Company (1935), M. Rabonovitch (1948), Richard King (1960), and Don Faulkner and Associates (1962).

By 1965 the building was owned by Roy Christie, who retained the building until 1973. Christie is the last known owner prior to AAU occupation of the building in 1982.

California Register of Historical Resources Evaluation

680 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District (and is therefore an historical resource under CEQA). The property is also a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District (KMMS). In addition to being listed in the NRHP and contributing to the KMMS, 680 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 Earthquake and Fire Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences. The property represents a distinctive example of an apartment building in the Nob Hill neighborhood with unique Swiss Chalet Bungalow-style details.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[1029] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must

[1025] Crocker Langley San Francisco Directory, 1916.
[1026] David Parry, "Conrad Meussdoffer, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2003.
[1027] San Francisco Chronicle, Big Holdings Change Hands in S.F. Deals, April 12, 1924.
[1028] San Francisco Chronicle, Realty Firm Buys Sutter Apartments, March 24, 1934.
[1029] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

680 Sutter Street retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1918 to 1940, with the end date corresponding with end of the historic district's period of significance.

Character-Defining Features Summary

Exterior

- Mid-rise height and irregular plan with short, recessed eastern wing and open courtyard on west elevation
- Site: set flush with the sidewalk
- Articulated storefront and recessed residential entryway to east
- Red-clay clad, front-gable roof with elaborate decorative brackets and exposed rafter ends on primary wing and flat roof with no eaves on rear (north) and east wing
- Short projecting bays on south and east
- Bold projecting cornice defining division between ground and upper stories
- Brick entrance wall; wood and glass entrance with ornate decorative trim
- Concrete construction and smooth stucco sheathing on exterior walls
- Large arched windows accented with decorative keystones
- Divided light, wood-casement windows on north, south, and east elevations
- Fire escape (south and north elevations)

Interior

- Spatial arrangement: short hallways along open central courtyard
- Original doors and frames
- Decorative picture rails and base moldings
- Vaulted lobby ceiling with decorative molding
- Decorative pilasters and marble floor in lobby
- Marble fireplace
- Decorative railing

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Fire Escape Platform and Balconette/Railing Removal: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Brackets: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Awning: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 2. The original façade-length fire escape platform and railing balanced the vertical design composition of the building. These elements were distinctive, character-defining features for the property.

Brackets: The project does not comply with Rehabilitation Standard No. 2. The brackets are a remnant of a now-removed wall sign that had been installed in 1982 by AAU and removed by 2008. The brackets interrupt the smooth corner and the void between extending window bays. Additionally, the installation of these brackets, into the smooth stucco of the exterior walls, damaged historic fabric.

Awning: The project does not comply with Rehabilitation Standard No. 2. The awning obscures distinctive character-defining elements of the residence that were designed to be seen. These include: (1) the principal recessed entrance, (2) ground-floor windows along the eastern elevation, and (3) the brick wall marking the entrance porch. The awning installation also appears to have damaged the historic stucco surface and material around the main entry.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs of the building indicate that the original windows within the large arched openings on the ground-level were divided lights. The installation of the aluminum windows altered this original pattern, resulting in the removal of distinctive historic materials.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Fire Escape Platform and Balconette/Railing Rmoval: The project complies with Rehabilitation Standard No. 3.

Brackets: The project complies with Rehabilitation Standard No. 3. Given their size and utilitarian appearance, the brackets do not create a false sense of historical development.

Awning: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have an awning over the primary entryway during the period of significance (1918–1940). The awning introduces a highly visible element on the façade that is not consistent with the historical appearance of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The non-original aluminum windows introduce an architectural element that is inconsistent with the original design and character of the building.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 5. The original façade-length fire escape platform and railing balanced the vertical design composition of the building. These elements were distinctive, character-defining features of the property.

Brackets: The project does not comply with Rehabilitation Standard No. 5. The large mounting brackets were installed directly into historic wall finishes and materials. The project is likely to have resulted in damage to distinctive materials that characterize the property.

Awning: The project does not comply with Rehabilitation Standard No. 5. The non-original awnings obscure the distinctive character, configuration, and details of the entrance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The removal of original windows and installation of replacement windows resulted in the loss of distinctive features and materials that characterized the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 6. Deteriorated features were replaced rather than repaired, and the character and appearance of the replacement features do not match those of the original features.

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were deteriorated and the project replaced rather than repaired them.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property.*

The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 9. Original features were removed and not replaced in-kind to match the historic features in appearance, size, or proportions.

Brackets: The project does not comply with Rehabilitation Standard No. 9. The brackets interrupt the smooth corner and the void between extending window bays, which contribute to the character of the property. Additionally, the installation of these brackets has damaged the historic stucco.

Awning: The project does not comply with Rehabilitation Standard No. 9. The awning obscures the primary entryway, which both contributes to the historic character of the property and is important to its ability to convey its historic significance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to the original divided-light windows, which both contribute to the historic character of the property and are important to its ability to convey its historic significance.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Fire Escape Platform and Balconette/Railing Removal: The project complies with Rehabilitation Standard No. 10. Its removal would not permanently impair the essential form and integrity of the historic property.

Brackets: The project complies with Rehabilitation Standard No. 10. Although installation of the brackets may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Awnings: The project complies with Rehabilitation Standard No. 10. Although installation of the awning may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although installation of the new windows resulted in damage to historic materials, new windows can be installed that replicate the materials and window pane configuration of the original divided-light windows.

Article 11 Analysis

680 Sutter Street (ES-19) is a Category IV (Contributory) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11

properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[1030]

Design Standards for the Kearny-Market-Mason-Sutter Conservation District specify that awnings should not obscure character-defining features.[1031] In the case of the subject property, the awnings introduce an architectural feature that obscures the character-defining residential entrance and decorative surround with details that were designed to be seen.

Conclusion

The following recommended Conditions of Approval are suggested to facilitate bringing the building at 680 Sutter Street (ES-19) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-19: HR-1, Awning. The awning and brackets shall be removed and any damaged material shall be repaired.

Recommended Condition of Approval, ES-19: HR-2, Windows. Non-original vinyl and aluminum windows shall be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.

Recommended Condition of Approval, ES-19: HR-3, Restore Appearance and Proportions of Sixth-Story Fire Escape Platform, Balconette, and Railing. The original appearance and proportions of the fire escape's façade-wide platform, balconette and decorative railing at the sixth story shall be restored, using documentary evidence.

[1030] Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.

[1031] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 7.

This page intentionally left blank.

4.3.2. 655 Sutter Street (ES-21)

Property Information

The 655 Sutter Street existing site (ES-21), also known as the Howard Brodie women's dormitory, is a 37,716-square-foot, six-story building constructed in 1912, and located on Sutter Street between Taylor and Mason streets in the Downtown/Civic Center neighborhood.[1032] As student housing, the building has a capacity of 61 group-housing units with 177 beds. The building also includes a manager's office, a painting studio room, a computer room, and lounge. The site is Lot 004 in Assessor's Block 018.

Prior to AAU occupation in 1991, the building was occupied primarily by various office uses, including medical offices, the American Institute of Wine and Food, and Paralegal Training and Resource Center. An unknown bar also occupied a portion of the building in 1986.[1033] The building has five floors above ground-floor storefront space. AAU obtained a change of use permit from office to group housing in 1999 and currently uses the space for group-housing rooms and retail. The nearest AAU shuttle stop is located in front of 620 Sutter Street (ES-20), located across the street from ES-21. The ES-20 shuttle stop is served by AAU shuttle bus routes D, E, G, H, I, and the Sutter Express.

ES-21 is in a C-3-G (Community Business) Zoning District, a district having a variety of uses with Citywide functions. Single room occupancy housing and student housing are principally permitted uses in this district, as are institutional and retail sales uses. Hotel and motel uses require conditional use (CU) authorization. ES-21 is located in an 80-130-F height and bulk district.

Tenant Improvements and Renovations

AAU performed seismic upgrades in 1996 and underpinning in 2002. AAU installed upgraded bathrooms including two Americans with Disabilities Act (ADA)-compliant toilets; installed a fire safety standpipe, sprinklers and a fire alarm; and constructed a minor office remodel in 1999, each to facilitate group housing use. AAU performed additional ADA compliance remodels including demolition of interior drywall and existing restrooms; kitchen upgrades for cafeteria/restaurant use; and expansion of fire safety system 2009. In response to a Notice of Violation (NOV), AAU performed light and ventilation improvements in the ground floor activity room without permit in 2010.[1034] AAU installed an electric illuminated wall sign in 2010. AAU applied black tiles and paint to the eastern storefront, installed security cameras, and added exterior lights along the rear of the building without benefit of permit.[1035]

[1032] Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.

[1033] *2011 IMP*, p. 83.

[1034] Building Permits obtained for the improvements and renovations at ES-21 are: BPA #201001255231 (wall sign, permit never issued), #200910148919 (kitchen fire sprinklers), #200910088599 (miscellaneous fire equipment), #200907011803 (ADA compliance), #200212193854 (underpinning), #200008167973 (fire standpipe), #9922424 (fire alarm), #9918635 (fire sprinklers), #9905902 (ADA bathroom upgrades); and #201010263778 (light and ventilation improvements in response to NOV #20105228, permit never issued)

[1035] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Required Project Approvals

A Major Permit to Alter (PTA) is required under San Francisco Planning Code (Planning Code) Article 11 to legalize or modify past building alterations performed without benefit of permit.

Building Description

The mid-rise building at 655 Sutter Street (ES-21) was constructed in 1912, originally as apartments; however the building was converted to use as an office building soon after and added commercial space on the first story by 1933. The building has a rectilinear massing and T-shape plan and is set flush to the sidewalk on a rectangular, sloped lot with its primary elevation fronting Sutter Street. The building was constructed in the Renaissance Revival style and features a brick and stucco façade. The six-story rectangular massing is composed of a tripartite design with an unornamented ground story, finer detailing through the middle stories, and elaborate ornamentation on the top story. The symmetrical façade is topped by a flat roof with a detailed ornamental cornice with modillions and dentils.

The primary elevation's tall first story features a centered, recessed main entry with storefronts on either side. Altered to its current configuration in 1962, the main entry is composed of a set of aluminum double-doors with side lights and a large transom above. The walls of the recessed entry are sheathed in marble and framed on the exterior by slim aluminum surround. Each storefront features large windows and a recessed entry. The eastern storefront was extensively altered in 1986 through the installation of the multi-light fixed window, and more recently with the addition of a black tiled bench and lighting above. Largely original, the western storefront uses a centered door with large window panes and signage above. Minimal ornamentation on the first story includes the scrolled brackets adjacent to the storefronts. A simple cornice line divides the first story from the upper stories. The middle stories are composed of a symmetrical fenestration pattern. Wood frame single-hung windows are used in pairs and individually throughout the elevation. Decorative spandrel panels are located between pairs of windows and the windows on the fifth story are arched. A detailed band separates the middle stories of the top story, which features ornamental pilasters. A metal fire escape is centered on the building. Secondary elevations are visible from the alley behind the structure. The rear section of the T-shape is constructed of brick with recessed windows. The flat roof is capped in a shallow copping at the eave line. The window types used include single-hung windows in a variety of configurations. A metal fire escape is located on the southern elevation.

The main entry leads to a small lobby, which features terrazzo floor tiles, mirrored walls, elevators, and staircase. The original design of the structure did include a lobby but not commercial spaces. Since its original construction however, the lobby has been configured several times, to include ground floor commercial spaces by 1933. The double-loaded corridor spatial arrangement of the upper stories appears to be intact, however, the original materials appear to have been largely replaced with drywall, metal doors, and carpeting (for representative photographs refer to Photographs 151–153).

Photograph 151. 655 Sutter Street.

Photograph 152. 655 Sutter Street, detail of main entry.

Photograph 153. 655-Sutter Street.

Site History

Frederick Herman Meyer designed the apartment building at 655 Sutter Street for H.O. Trowbridge and W.F. Perkins. According to the *San Francisco Chronicle* article, published 23 October 1913:

> The suites of apartments are arranged in two and three rooms, each having a private hall and bathroom. Wall beds will be placed in all apartments. The bathrooms are to have tiled floors and tiled wainscot, with recess tubs. Dining-rooms will be wainscoted and all the walls covered with selected papers. A spacious lobby will lend character to the house, and its finish, to be in keeping with this idea, will be in tiled floor, marble wainscots and a ceiling decorated with ornamental plaster.[1036]

Meyer (1876–1961), a San Francisco native, had no formal training when he joined the architecture firm of Campbell and Pettus in 1896.[1037] Two years later he was hired by the firm of Samuel Newsom and quickly became a partner. By 1902 Meyer had partnered with Smith O'Brien before opening his own office in 1908. Meyer was later appointed to design a plan for the construction of the Civic Center with John Galen Howard and John Reid, Jr. and the three would collaborate on the Auditorium for the 1915 Panama-Pacific International Exposition (now named the Bill Graham Auditorium). Along with the Exposition Auditorium, Meyer designed several notable buildings throughout the City, including 2480 Broadway (Pacific Heights residence, 1902), 116 New Montgomery (Rialto Building, 1906), 380 Eddy Street (Cadillac Hotel, 1906), 785 Market Street (Humboldt Bank Building, 1908), and 2375 Vallejo (residence, 1910).[1038]

655 Sutter was completed in 1913 and would have numerous owners and tenants over the following decades. As of 1946, the property was owned by Dr. Francis B. Quinn who by 1955 had converted the apartment building into an office building, primarily oriented toward medical offices. Quinn renovated the entrance and lobby in 1962 and owned the building until 1963 when ownership transferred to Neil Thompson. Subsequent owners included Anthony Martino and Gilmer Anselmo, T. Knight, Sutter Medical, and Draper Financial Corporation, which remodeled the western first floor

[1036] San Francisco Chronicle, Brick Apartments Near Completion, October 23, 1913.
[1037] David Parry, "Frederick H. Meyer, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2002.
[1038] Ibid.

retail space in 1976. A number of tenants occupied spaces within the building including the American Institute of Wine and Food, Paralegal Training and Resource Center, and a bar that altered the eastern ground-level storefront and interior in 1986.

Since AAU took ownership of the building in 1999, AAU changed the use of the property from office to residential and completed multiple alterations including installation of a box sign and new lighting, and materials along the eastern ground-level storefront.

California Register of Historical Resources Evaluation

655 Sutter Street was evaluated for eligibility for the California Register of Historical Resources (CRHR) as part of the current study. In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 655 Sutter Street appears individually eligible for the CRHR under Criterion 1, as an exemplification of widespread multi-family construction in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period. The property also qualifies under CRHR Criterion 3, as an excellent example of Renaissance Revival-influenced architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[1039] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 655 Sutter Street retains integrity and remains CRHR eligible. The period of significance is 1912, corresponding with the construction date of the property.

Character-Defining Features Summary

Exterior

- Mid-rise height and rectilinear massing and T-shaped building plan
- Site: set flush to sidewalk
- Tripartite design composition unornamented ground floor, finer detailing through middle floors, and elaborated ornamentation on top floor
- Flat roof with no overhanging eaves
- Brick and stucco exterior wall surfaces
- Detailed ornamental cornice with modillions and dentils
- Detailed spandrel panels between paired, mid-floor windows
- Ornamental pilasters on top story
- Decorative panels and scrolled brackets on ground level
- Wood frame single-hung windows

[1039] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

- Arched brick window openings on 5th floor
- Fire escapes (north and south elevations)

Interior

- Spatial arrangement: double-loaded corridor
- Interior stairway and railings

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Signage: The project complies with Rehabilitation Standard No. 2. The illuminated wall sign that was installed over the primary entrance is generally compatible in scale and appearance, and does not obscure character-defining features.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Signage: The project complies with Rehabilitation Standard No. 3. The illuminated wall sign is clearly modern and does not result in a false sense of historical development.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Signage: The project complies with Rehabilitation Standard No. 5. The installation of the illuminated wall sign resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Signage: The project complies with Rehabilitation Standard No. 9. The illuminated wall sign is generally compatible in scale and appearance, does not obscure character-defining features, and is clearly differentiated from the features that characterize the building.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Signage: The project complies with Rehabilitation Standard No. 9. The illuminated wall sign is generally compatible in scale and appearance, does not obscure character-defining features, and is clearly differentiated from the features that characterize the building.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Article 11 Analysis

In considering the sign's compliance with applicable Article 11 guidelines, the sign is located in an area that does not obscure character-defining features and is attached in a manner that should allow for its removal without adversely impacting the exterior of the building. However, although the sign is compliant with the SOIS, it includes elements that are not generally permitted under Article 11. Specifically, the sign is an internally illuminated box sign with a plastic lens, a sign type that is not permitted in Article 11 Conservation Districts.[1040] Further, the box sign is supplied electrical power

[1040] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.

via conduit that is directly attached to the decorative door surround and the face of the building, another design element that is not permitted for new signs.[1041]

The eastern, ground-level storefront was changed by AAU through the application of black tile, black paint, and installation wall-mounted lights after 1999. The storefronts are not considered character defining (they date beyond the period of significance and have not acquired significance in their own right). Added by 1933, the eastern storefront was further altered in 1985 by a previous tenant, resulting in the current window and entryway configuration. Although the changes completed by AAU involved non-character-defining elements (and therefore are outside the ordinary purview of the SOIS), Article 11 design guidelines for the Kearny-Market-Mason-Sutter (KMMS) Conservation District would still apply. Specifically, Article 11, Appendix E, Section 7 identifies certain general materials and colors to be used for contributing properties, including brick, stone, and concrete (simulated to look like terra cotta or stone), and traditional light-hued colors.

Conclusion

The following recommended Conditions of Approval are suggested to facilitate bringing the building at 655 Sutter Street (ES-21) into compliance with applicable Article 11 guidelines:

Recommended Condition of Approval, ES-21: HR-1, Signage. To bring the sign into compliance with Article 11 guidelines AAU shall remove the current sign using the gentlest means possible, repair the exterior wall surface as needed, and install a new sign that is indirectly illuminated as specified in KMMS Design Standards.

Recommended Condition of Approval, ES-21: HR-2, Paint. AAU shall repaint the dark storefront colors on the eastern storefront to lighter hues, in accordance with Article 11 guidelines.

[1041] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 3.

4.3.3. 625–629 Sutter Street (ES-22)

Property Information

The 625-629 Sutter Street existing site (ES-22) is a 26,322-square-foot, four-story building constructed in 1921, and located on Sutter Street between Taylor and Mason streets, in the Downtown/Civic Center neighborhood.[1042] The building has a capacity of 155 occupants (120 students and 35 faculty and staff members). The site is Lot 014 in Assessor's Block 297.

Prior to AAU occupation in 1968, the building was occupied by the June Terry School.[1043] The building has three floors above ground-floor storefront space. The site was an existing postsecondary educational institution, with no change in use during AAU occupation, which is currently used for classrooms, labs, art studios, offices, a gallery and a darkroom. The nearest AAU shuttle stop is located in front of 620 Sutter Street (ES-20), located across the street from ES-22. The ES-20 shuttle stop is served by AAU shuttle bus routes D, E, G, H, I, and the Sutter Express.

ES-22 is in the C-3-G (Downtown General) Zoning District, a district having a variety of uses with Citywide functions. Single room occupancy housing and student housing are principally permitted uses in this district, as are institutional and retail sales uses. Hotel and motel uses require conditional use (CU) authorization. ES-22 is located in an 80-130-F height and bulk district.

Tenant Improvements and Renovations

AAU completed fire sprinkler improvements, braced existing parapet walls, and constructed a new concrete floor slab in 1982. AAU demolished some interior partitions on the third and fourth floors in 1983. AAU performed exploratory demolition of non-structural concrete floor slab in the rear basement area in 1989. AAU repaired fire escape steps and installed gate improvements in 1992. AAU removed a barrier and installed a door and sinks to create an accessible darkroom. AAU installed a new fire alarm system, conducted barrier removal work, corrected egress doors and added or relocated accessible drinking fountains in 2010.[1044]

AAU performed certain work on awnings, signs, windows, stairways, fencing, and doors without benefit of permit. AAU installed three awnings in 1972 by permit, however the current awnings most likely have had the fabric replaced with an AAU logo without permit. AAU installed a double-sided protruding wall sign. AAU replaced windows on the second, third, and fourth floors, and some storefront windows have been removed and/or in-filled with plywood panels. AAU also added a metal stairway in the rear of the building and added glass metal doors at the landing to the metal

---

[1042] Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.

[1043] *2011 IMP*, p. 83.

[1044] Building Permits obtained for the improvements and renovations at ES-22 are: BPA #201010263774 (barrier removal, egress door correction, drinking fountains), #201004019443 (fire alarm system), #9724675 (darkroom barrier removal), #9519059 (reroofing), #9207785 (fire escape step repair), #8908246 (exploratory demolition), and #8307253 (interior partition demolition).

stair. AAU also added replacement doors on one-story addition. AAU also added a wood lattice fence.[1045]

Required Project Approvals

A Major Permit to Alter (PTA) is required under San Francisco Planning Code (Planning Code) Article 11 to legalize or modify past building alterations performed without benefit of permit.

Building Description

Constructed in 1921, 625–629 Sutter Street (ES-22) has a rectangular plan and is set flush to the sidewalk. Set on a rectangular, sloped lot the building has a primary elevation facing Sutter Street and a secondary elevation fronting the alley behind the building. The four-story building is a Spanish Colonial and Churrigueresque style, constructed in concrete and covered in stucco. The asymmetrical and balanced design has a defied western bay. The building is capped with a flat roof with a stepped parapet over the western bay and projecting eave with decorative brackets over the rest of the building.

The primary elevation features an elaborated, centered recessed main entry centered in the eastern portion of the building and surrounded by Churrigueresque detailing. On either side of the main entry is a storefront with a recessed entry and transom widows above that are currently boarded with plywood. A third storefront is located on the first story of the western bay. A cornice line divides the commercial first story from the upper stores. Four rectangular windows are spaced evenly across each story, one in the western bay and the other three spaced throughout the eastern portion. The windows on the eastern bay feature pediments and sidelights on the second story and surrounds on the fourth story. On the western bay, Churrigueresque ornamentation surrounds the second and third story windows, and a decorative surround and sea shell details are featured on the fourth story. A wide band with Churrigueresque details and recessed panels separate the third and fourth story. Window types used on the primary elevation include original wood and non-original aluminum double-hung, multi-light, large fixed storefront windows, and fixed transom windows. Noncontributing awnings have been added over the storefronts. A secondary elevation is visible from the alley. A metal stair provides access to the upper floors over the early one-story addition. Brick and board form concrete are visible on the elevation. Windows used in a variety of configurations include rectangular vinyl double-hung and casement windows (for representative photographs refer to Photographs 154–156).

[1045] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 154. 625–629 Sutter Street.

Photograph 155. 625–629 Sutter Street, detail of main entry.

Photograph 156. 625–629 Sutter Street.

Site History

625–629 Sutter Street was designed in 1921 by architects Samuel Lightner Hyman (1885–1948) and Abraham Appleton (1887–1981). Born in Honolulu, Hawaii, Hyman studied at the University of California in Berkeley, Columbia University in New York, and the *École des Beaux Arts* in Paris before returning to San Francisco. Appleton was a native of the San Francisco Bay Area and also studied architecture at the University of California Berkeley before establishing the firm of Hyman and Appleton in the early 1920s.[1046]

One of the firm's frequent clients was Laurence A. Meyers, a developer with whom they designed numerous buildings for, including: 302 Silver Avenue (Jewish Home for the Aged, 1923), 2100 Pacific Avenue (apartments, 1926), 1501 Divisadero Street (Sinai Memorial Chapel, 1938), 301 Leland Avenue (Visitation Valley School, 1937), and Portals of Eternity Mausoleum and Chapel (Hills of Eternity Memorial Park, 1934).[1047],

Prior to the development of these projects Meyers commissioned the firm to design the building at 625–629 Sutter in 1921. When it was completed four years later in 1925 the San Francisco Chronicle reported:

[1046] Daniella Thomson, "If You Don't Want to Find Anything, Don't Look Anywhere," *The Berkeley Daily Planet* March 26, 2010.
[1047] Bloomfield, Anne and Michael R. Corbett. *Uptown Tenderloin Historic District National Register of Historic Places Registration Form*, 2008.

The building, which is the workmanship of Samuel Lightner Hyman and Abraham Appleton, architects, is a new departure in store buildings, representing a rich, old Spanish structure appealing to the aesthetic rather than the commercial taste.[1048]

Ownership of the building changed frequently over the following decades with various improvements being undertaken by each occupant. Building permits indicate that as of 1929 the building was owned by F.M Gilberd, who in April of that year added a one-story addition to the rear. By October of 1929 D.R. Eisenbach was listed as the owner and ten years later in 1939, it was owned by S. Weisser. During the 1940s the American Red Cross and the U.S. Army leased the building.

The building was owned by Herbert W. and Barbara F. Richards by April of 1946 before it transferred again to new owners Walter & Ross in October of that year. By 1959, ownership of the building was under U.P. Channon. By the time the June Terry Finishing School leased space in the building in 1962, the building was owned by George B. McDonald. AAU eventually leased the building in 1968, and since that time they have completed a number of alterations to the building, most notably to the storefronts on the ground level of the main (north) elevation.

California Register of Historical Resources Evaluation

625–629 Sutter Street was evaluated for eligibility for the California Register of Historical Resources (CRHR) as part of the current study. In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 625–629 Sutter Street appears CRHR-eligible individually under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period. The property also qualifies individually under CRHR Criterion 3, as an excellent example of Spanish Colonial/Churrigueresque commercial architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[1049] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 625–629 Sutter Street retains integrity and remains eligible for the CRHR. The period of significance is 1921, corresponding with the construction of the building

Character-Defining Features Summary

Exterior

- Four-story with a defined western bay featuring Churrigueresque ornament around the westernmost 2nd and 3rd floor windows; sea-shell details on the western 4th floor wall and a stepped parapet

[1048] San Francisco Chronicle, Three Stories Will Be Added, March 7, 1925.
[1049] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

- Churrigueresque detailing, articulated entryway
- Decorative pediments above the 2nd floor windows
- Decorative brackets
- Asymmetrical but balanced design composition
- Stucco and concrete wall surfaces
- Transom windows above ground-level storefronts
- Cornice diving the storefronts from the upper stories
- Original double-hung and steel casement windows on rear exterior

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awnings: The project does not comply with Rehabilitation Standard No. 2. The awnings obscure the transom windows and part of the storefronts, both of which are character-defining features and key design components of the overall building design.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that upper stories of the building displayed characteristic multi-light casement windows. These distinctive features were removed and replaced with primarily multi-light, aluminum-frame double-hung windows. The removal of the original windows resulted in the loss of distinctive materials and features that characterized the property.

Signage: The project does not comply with Rehabilitation Standard No. 2. The blade sign is attached to the building by two brackets located on the second floor, between the two easternmost windows. The sign interrupts the rhythm and design composition of the façade.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awnings: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have awnings during the period of significance. The awnings introduce a highly visible feature on the primary elevation that is not consistent with the historical character and appearance of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The altered windows introduce a feature on the primary elevation that is not consistent with the character of the historic windows.

Signage: The project does not comply with Rehabilitation Standard No. 3. The signage introduces a highly visible feature on the primary elevation that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awnings: The project does not comply with Rehabilitation Standard No. 5. The awnings introduce highly visible, noncontributing features that obscure and detract from the property's distinctive materials and features, as well as its overall design.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The installation of the current windows resulted in the loss of the historic materials and features that characterized the property.

Signage: The project does not comply with Rehabilitation Standard No. 5. The signage introduces highly visible, noncontributing features that obscure and detract from the property's distinctive materials and features, as well as its overall design. The installation of signage also appears to have involved damage to distinctive, historic materials and fabric (i.e., the smooth stucco finish of the façade).

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were deteriorated and the project replaced rather than repaired them.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property.*

The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.

Awnings: The project does not comply with Rehabilitation Standard No. 9. The awnings obscure the transom windows and portions of the storefronts, which both contribute to the historic character of the property and are important in its ability to convey its historic significance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to the original multi-light windows, which both contribute to the historic character of the property and are important in its ability to convey its historic significance.

Signage: The project does not comply with Rehabilitation Standard No. 9. The scale and proportion of the blade sign is not consistent with the character of the building and interrupts the rhythm of windows, obscuring them from view when approaching the building from the east or west. Further, the attachment of the sign has likely resulted in damage to the historic stucco on the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awnings: The project complies with Rehabilitation Standard No. 10. Although installation of the awnings may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although installation of the new windows resulted in damage to historic materials, new windows can be installed that replicate the materials and window pane configuration of the original multi-light windows.

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the blade sign may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property

Article 11 Analysis

The blade sign is currently attached to the building by two brackets located on the second floor between the two most eastern windows. The sign interrupts the rhythm of the windows and obscures them from view when approaching the building from the east or west. The fenestration pattern contributes to the asymmetrical but balanced design composition, which is considered a character-defining feature. Design Standards for the Kearny-Market-Mason-Sutter (KMMS) Conservation District not only discourages the placement of signs in places that obscure character-defining features, but also in location above the window sill of the first residential floor.[1050] The projecting blade sign is not currently compliant with either of these guidelines as it obscures the fenestration pattern of the building and extends above the sill of the first upper-level floor. Further, the sign appears to be an internally illuminated box sign with plastic lenses that is currently are powered by

[1050] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 5.

conduit, which is exposed and attached to the face of the building. Under Article 11 guidelines, illuminated box signs are not permitted and conduit must be concealed and never attached or left exposed to the face of the building, the sign structure, or the sign itself.[1051]

Although the awnings are compliant with aspects of the KMMS Design Standards, including being located within the frame of the storefront openings and not blocking the piers and lintels, the awnings currently obscure the transom windows, which are considered a character-defining feature. Per the KMMS Design Standards, awnings should not obscure transom windows or cover any of the architectural or character-defining features of a building.[1052]

Conclusion

The following recommended Conditions of Approval are suggested to facilitate bringing the building at 625–629 Sutter Street (ES-22) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

Recommended Condition of Approval, ES-22: HR-1, Signage. The projecting wall sign shall be removed and the original physical appearance of wall materials replaced. If a new sign is to be installed, it shall follow the guidelines of the KMMS Design Standards and be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated.

Recommended Condition of Approval, ES-22: HR-2, Awnings. The current window awnings shall be removed using the least invasive means possible, with materials repaired and refinished to match existing. If new awnings are to be installed, they shall follow the guidelines of the KMMS Design Standards and be of a smaller scale such that they do not obscure the character-defining transom windows.

Recommended Condition of Approval, ES-22: HR-3, Windows. The non-original windows shall be removed using the gentlest means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.

[1051] San Francisco Planning Department, June 2009, 11-13.
[1052] San Francisco Planning Department, June 2009, 8.

This page intentionally left blank.

4.3.4. 540 Powell Street (ES-25)

Property Information

The 540 Powell Street existing site (ES-25) is a 30,900-square-foot, four-story building constructed in 1909, and located on Powell Street between Bush and Sutter streets, near Union Square in the Downtown/Civic Center neighborhood.[1053] The building has a capacity of 313 occupants (288 students and 25 faculty and staff members). The site is Lot 009 in Assessor's Block 285.

Prior to AAU occupation in 1977, the building was occupied by the San Francisco State College, the Erotic Art Museum, and a hotel.[1054] The building has four floors above a subterranean parking level. AAU converted the property in 1977 to a postsecondary educational institution and currently uses the space for classrooms, labs, art studios, offices, and an art store. The site is not individually served by any AAU shuttle routes. The nearest shuttle stop, 620 Sutter Street (ES-20), is two blocks west of ES-25 on Sutter Street.

ES-25 is in a C-3-R (Downtown Retail) Zoning District. The C-3-R Zoning District principally allows compact urban retail and consumer services uses, but also permits certain residential, institutional, and light industrial uses. The site is within the 80-130-F height and bulk district. ES-25 is within the Downtown Planning Area.

Tenant Improvements and Renovations

AAU removed a temporary wall and added a countertop in a kitchen in 1991. AAU installed two dome window awnings to the ground story in 1992. AAU performed emergency repairs to ceilings for water damage, and provided an Americans with Disabilities Act (ADA) accessible entrance and lift in 1998. AAU repaired sidewalks in 2003. AAU installed a wall sign in 1976 and an electric double-faced illuminated sign without a building permit in 2008. AAU painted wall signs in 2011 and later removed painted signs in 2015. AAU performed parapet stabilization work in 2011.[1055] AAU replaced second- and third-story windows on the Powell Street elevation and east (alley) elevation without permit. AAU also added security cameras and security bars on first story windows.[1056]

Required Project Approvals

A Major Permit to Alter (PTA) is required under San Francisco Planning Code (Planning Code) Article 11 to legalize or modify past building alterations performed without benefit of permit.

[1053] Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.

[1054] *2011 IMP*, p. 83.

[1055] Building Permits obtained for the improvements and renovations at ES-25 are: BPA #200804018449 (double-faced sign, permit never issued), #201105095675 and #201509247952 (painted sign and removal), #9214035 (awnings), #201106067509 (parapet), #200308061361 (sidewalk repair), #9812918 (ADA entrance), #9801788 (emergency ceiling repair), and #9122859 (temporary wall and counter).

[1056] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Building Description

Rectangular in plan and set flush to the sidewalk, 540 Powell Street (ES-25) was constructed in 1909 for the Benevolent and Protective Order of Elks. The four-story building occupies a rectangular, steeply sloped lot, with the primary elevation facing Powell Street and secondary elevation fronting Anson Place. The building also has a subterranean basement level.

Drawing on the Spanish Renaissance/Mission Revival styles, the building displays a symmetrical design composition and differentiated treatment of the ground story and upper stories. On the façade and visible secondary elevation, the primary design motif is the repeating use of arched wall openings, accented with decorative sills, dentil courses, and spandrel panels. The ground story generally consists of broad, unadorned expanses of smooth stucco-clad walls, punctuated with three large arched openings. A granite-clad base provides the foundation of the building the level of the sidewalk. The focal point of the ground story is the centered entry portico, flanked by two arched window openings. The center stories are characterized by a progression of attached columns and rows of double-hung windows, with ornamental detailing varying on each floor. The building is capped with a flat roof and stepped parapet, accented with scroll work and centered medallion, facing Powell Street.

The tall first story features a centered, recessed main entry adorned with marble. The main entrance appears to retain its original wood double-doors; the doors have beveled vertical windows, stylized metal sheeting at the bottom, and transom windows above. Arched windows trimmed with molded frames are located on either side of the main entry, which are partially covered by dome window awnings. A cornice line above the first story has a central large medallion. The second, third, and fourth story windows are framed with recessed panels, engaged Corinthian columns, and ornamental detailing. The windows are non-original vinyl and original wood double-hung on the upper stories, and original fixed and hopper wood-windows on the first story. A non-original glass and metal door in the southernmost corner of the façade leads to the basement.

Along Anson Street, the secondary elevation has a fire escape at the eastern end with various types of personnel doors and a wheelchair ramp on the first story. Windows on this elevation feature decorative sills, hood molds with keystones, and frames with keystones. Other decorative features include recessed panels and trim above the second floor. Rectangular and arched double-hung windows in a variety of configurations are displayed on the elevation. Similar to the façade, the windows on the second and third floors have been replaced with vinyl. Metal security bars have been added over the first story windows.

The main entry leads to a small lobby, with a hallway extending toward the rear (east) of the building. Each of the upper floors features a similar floor plan consisting of a narrow hallway bordered by classrooms on either side. Each floor is accessed via a curved wooden staircase or an original Otis elevator. The basement level has been altered through early partitions, which have divided what was originally an open floor plan. Character-defining features found within the interior spaces include original wood elements and accents such as doors, framing, and floors, as well as original wainscot, fireplaces with paneled chimneys, transom windows, light fixtures, coffered ceilings, and paneled walls (for representative photographs refer to Photographs 157–159).

Photograph 157. 540 Powell Street.

Photograph 158. 540 Powell Street, perspective of the north elevation.

Photograph 159. Interior lobby of subject property.

Site History

Construction of 540 Powell Street commenced with a ground-breaking ceremony in November 1908. The San Francisco Lodge, No. 3, Benevolent and Protective Order of Elks commissioned the building after its members raised $150,000 for the construction through the sale of stock.[1057] The Spanish Renaissance/Mission Revival-style building was designed by well-regarded and prolific San Francisco architect (and Elks lodge member), Alexander Aimwell Cantin. A native of New York, Cantin received his license to practice architecture in 1901 and remained in active practice for nearly half a century. His San Francisco and Bay Area commissions included numerous post-Reconstruction era buildings, as well as movie theaters, including the Del Mar Theater (San Leandro, 1941), Orinda Theater (Orinda, 1941), and State Theater (Red Bluff, 1946). In the post-World War II era, Cantin worked in partnership with his son, A. Mackenzie Cantin.

The *San Francisco Chronicle*, in an article published 2 October 1908, heralded the amenities and details of the new Elks building:

The basement will be fitted up as a jinksroom and ballroom, with heavy timbered beams, clinker brick walls and high wainscot. The demands of the social side of the lodge, which are exacting, will be met on the first floor, which is to be luxuriously furnished and arranged as a lounging room with nooks and cozy corners, a large dining room, billiard-rooms, library, writing-rooms, telephone and hat rooms and office. The second floor will be exclusively devoted to living-rooms with baths, as will be the front part of the third and fourth floors. In the rear of the third and fourth floors will be richly wainscoted to a height of twelve feet and the walls and ceiling will be decorated and topped by a grand dome. The furnishings throughout will be on a par with the style of the building itself, which will be used exclusively by the lodge as a club and for fraternal purposes and also for its numerous social functions.[1058]

Following its founding in 1876, BPOE Lodge No. 3 occupied several rented spaces in downtown San Francisco. At the time of the 1906 Earthquake and Fire, the organization was located at 223 Sutter Street; the building and lodge possessions were destroyed in the fire, with the exception of a few records. Upon completion of 540 Powell Street, the lodge began occupying its new home in March 1910,[1059] where it remained until 1924, when a growing membership hastened relocation to a new space at 450 Post Street.[1060]

By 1927, 540 Powell Street had been purchased by the University of California, which used the property as an extension space. A major remodel of the building took place in 1927, consisting of nearly $50,000 of work carried out by architect W.P. Stephenson; these alterations appear to have included the construction of classrooms. According to available building permits, the building's decorative, overhanging cornice line, which appears in historic photographs, was removed by the University of California in 1943. By circa 1970, San Francisco State College began occupying the building. Prior to the AAU's 1977 occupation of the property, a portion of the building was occupied by the Erotic Art Museum.

[1057] San Francisco Chronicle, Elks Will Build Magnificent Home, October 2, 1913.
[1058] San Francisco Chronicle, Elks Will Build Magnificent Home, October 2, 1913.
[1059] "The Lodge on the Cable Car Line," *Elks Bulletin*, San Francisco Lodge B.P.O. Elks #3, February 1998.
[1060] Michael Corbett, *Splendid Survivors: San Francisco's Downtown Architectural Heritage*. California Living Books, 1979, p164.

California Register of Historical Resources Evaluation

The subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR). In addition to being a Category I contributing property in the Kearny-Market-Mason-Sutter Conservation District, 540 Powell Street appears to be individually eligible for the CRHR under Criterion 1, as an example of institutional architecture in downtown San Francisco in the post-1906 Earthquake and Fire Reconstruction period. The property also qualifies individually under CRHR Criterion 3, as an excellent example of the Spanish Renaissance/Mission Revival style applied to institutional/commercial architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance."[1061] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

540 Powell Street retains integrity and remains CRHR-eligible individually. The period of significance is 1909 to circa 1925.

Character-Defining Features Summary

Exterior

- Rectilinear massing and building plan
- Symmetrical design composition
- Set flush with sidewalk
- Four-story building capped with a flat roof and stepped parapet, accented with scroll work and a centered medallion
- Spanish Renaissance/Mission Revival ornamental program
- Attached colonnade of Corinthian columns on façade
- Arched window openings, trimmed with molded frames, and large original wood- frame windows
- Marble interior to entryway
- Granite base with smooth stucco-clad exterior
- Original main entry with wood double-doors, transom windows, beveled vertical windows and ornamental metal sheeting at bottom
- Original wood double-hung windows on ground-floor

[1061] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

Interior

- Original doors, transoms, frames and wainscot
- Ornate room/elevator
- Original Fire Escape sign
- Original wood floor
- Original light fixture and coffered ceiling in main hallway
- Paneled walls, decorative features on columns, and decorative railings in basement
- Curved wooden stairs in basement
- Original elevator
- Fireplaces with paneled chimneys
- Stage/performance space in basement

Secretary of the Interior's Standards Analysis

This section presents a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis includes the applicable Standards for Rehabilitation for each given project. See Appendix HR for a Table presenting an analysis of the AAU alterations and their compliance with each of the Secretary's Standards.

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Parapet Repair: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Projecting Blade Sign: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Barrel Window Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Hole cut into arched window: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 2. The building's distinctive roof line and parapet are character-defining features that reflect its Spanish Renaissance/Mission Revival style. In its current location, the metal bar stabilizing the parapet interrupts and obscures the central medallion and changes the original appearance of the parapet and roofline.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 2. The building is historically significant for its architectural style, which includes a symmetrical design composition and delineation between the treatment of the ground story and upper stories. Given its location, the blade sign interrupts and detracts from the character of the façade. Given that the sign extends from the ground story to the upper story, it interrupts the vertical composition that characterizes the property.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that the property did not have window awnings during the period of significance (1909 to circa 1925). The large arched window openings on the façade are considered character-defining and representative of the building's Spanish Renaissance/Mission Revival Style. The barrel window awnings alter the shape and appearance of the character-defining wall openings and obscure the detailed, ornamental surrounds, which were designed and detailed to be seen.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that original windows on the primary and secondary elevations included multi-light casement windows. These original windows were removed and replaced with new windows that differ in appearance and function.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 2, inasmuch as it involved the removal and replacement of original, distinctive materials that characterize the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 3. The metal bar used to stabilize the parapet is clearly visible and not consistent with the historic character of the property.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 3. The projecting sign is highly visible and introduces a feature that is not representative of the property’s historic significance, use, or character.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 3. The barrel window awnings are highly visible and introduce a feature that is not representative of the property’s historic significance, use, or character.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the original windows on the primary and secondary elevation were multi-light and casement windows. Although the vinyl windows are composed of materials that are clearly modern, the double-hung window-frame configuration of the new windows introduces an element that is not consistent with the original design and character of the building.

Hole cut into arched window: Rehabilitation Standard No. 3 does not apply to this project (the removal of part of the window does not in itself create a false sense of historical development).

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Parapet Repair/Metal Brace: The project does not comply with Rehabilitation Standard No. 5. The installation of the metal bracing bar on the façade of the building interrupts and detracts from the distinctive materials, features, and design of the roofline parapet.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 5. Installation of the blade sign and mounting brackets has resulted in damage to/removal of original, character-defining wall materials, and the projecting sign interrupts and detracts from the distinctive features and design of the façade.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 5. Installation of the barrel window awnings was completed by attaching metal frames directly to decorative window surrounds, resulting in damage to/obstruction of the distinctive materials and features that characterize the property. The barrel window awnings obstruct views of the façade’s character-defining window openings and their decorative detailing, changing the overall appearance of the distinctive materials and features.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in nominal damage/obstruction to distinctive features and finishes.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original multi-light and casement windows, which were examples of the distinctive materials, features, and craftsmanship that characterized the property.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 5. The project resulted in damage to/removal of a character-defining window on the façade of the building.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. Rather than retaining and repairing character-defining windows, the original windows were removed and replaced with vinyl windows.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 9. The parapet is an architectural feature that reflects the property's status an outstanding example of the Spanish Renaissance/Mission Revival Style. In its current location, the metal bar stabilizing the parapet interrupts and obscures the central medallion and changes the original appearance of the parapet and roofline. In addition, installation of the metal bar on the façade has likely resulted in damage to the historic wall materials that characterize the property.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 9. In its current location, the sign extends from the ground floor to the upper-story colonnade, interrupting the vertical design composition and overall character of the façade. In addition, the size and materials of the blade sign are inconsistent and incompatible with the historic character of the property.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 9. The large, arched window openings on the façade are considered character-defining and representative of the building's Spanish Renaissance/Mission Revival Style. The barrel window awnings alter the shape of the openings and obscure the detailed surrounds and windows behind them. In addition, the project has resulted in damage to/removal of distinctive materials through the attachment of the awning's metal frame directly to the decorative window surrounds.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs indicate that the original windows on the primary and secondary elevations were multi-light and casement windows. The project involved the removal of original multi-light and casement windows, which were examples of the distinctive materials and craftsmanship that characterized the property.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to/removal of a character-defining window on the façade of the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Parapet Repair: The project complies with Rehabilitation Standard No. 10. Although installation of the metal stabilization bar may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Projecting Blade Sign: The project complies with Rehabilitation Standard No. 10. Although installation of the blade sign may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Barrel Window Awnings: The project complies with Rehabilitation Standard No. 10. Although installation of the awnings may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the vinyl windows.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 10. The window was removed, so its essential form is no longer intact.

<u>Article 11 Analysis</u>

540 Powell Street (ES-25) is a Category I (Significant) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11 properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[1062]

In terms of signage, Article 11, Section 1111.6, *Standards and Requirements for Review of Applications for Alterations* states that

> an application for a business sign, general advertising sign, identifying sign, or nameplate to be located on a Significant or Contributory Building or any building in a Conservation District shall be subject to review by the HPC pursuant to the provisions of this Article. The HPC shall disapprove the application or approve it with modifications if the proposed location, materials, typeset, size of lettering, means of illumination, method of replacement, or the attachment would adversely

[1062] Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.

> affect the special architectural, historical or aesthetic significance of the subject building or the Conservation District.[1063]

Additional guidance is provided in *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* (San Francisco Planning Department, June 2009). In addition, Article 11 indicates that signs within Conservation Districts are subject to *Article 6, Signs*. *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* states the following: "Methods of illumination: Ideally, all signs should appear to be indirectly illuminated. This is commonly achieved by installing an external fixture to illuminate the sign or by using a reverse channel halo-lit means of illumination."[1064] Similarly, for signs within Conservation Districts, Article 6 states that signs with internally illuminated box signs with glass or plastic lenses are not permitted, and signage above the architectural base of the building is not permitted.[1065]

Two alterations to 540 Powell Street carried out by AAU appear in noncompliance with Article 11 guidelines. These changes are the projecting wall sign and barrel-vault awnings on the façade.

In its current location, the projecting sign extends from the ground story to the upper story, interrupting the design composition of the façade. According to Article 11, buildings within the Kearny-Mason-Market-Sutter Conservation District typically exhibit a rectilinear massing, with aesthetic effect achieved through a differentiated, vertical design composition. 540 Powell Street exhibits these qualities and, in this way, contributes to the overall character of the Conservation District.

The Conservation District design standards discourage the placement of signs in such a way that character-defining features are obscured. In addition, the design standards discourage locating a project sign above the window sill of the first residential floor.[1066] The projecting blade sign obscures the vertical composition of the building and extends above the sill of the first upper-level floor. In addition, the sign appears to be an internally illuminated box sign with plastic lenses. Under Article 11 guidelines, illuminated box signs are not permitted.[1067]

In terms of the barrel-vault awning, the Design Standards specify that awnings should not obscure character-defining features.[1068] In the case of the subject property, the awnings introduce an architectural feature that obscures character-defining window openings and decorative surrounds and details that were designed to be seen.

Conclusion

The following recommended Conditions of Approval are suggested to facilitate bringing the building at 540 Powell Street (ES-25) into compliance with the Secretary of the Interior's Standards and applicable Article 11 guidelines:

[1063] Planning Code, Article 11, Section 1112.c.
[1064] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District,* June 2009, p. 3.
[1065] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.
[1066] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 5.
[1067] Ibid, 11-13.
[1068] Ibid, 7.

Recommended Condition of Approval, ES-25: HR-1, Signage. The projecting wall sign shall be removed and the original physical appearance of wall materials and surrounding details and finish restored. If a new sign is to be installed, it shall be placed in a location on a secondary elevation that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated per Article 11 and Article 6 guidelines.

Recommended Condition of Approval, ES-25: HR-2, Awnings. The barrel window awnings shall be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, and the appearance of the original windows/features restored per documentary evidence. Materials shall be repaired and refinished to match existing.

Recommended Condition of Approval, ES-25: HR-3, Parapet. For the parapet repair to be brought into SOIS compliance, the steel reinforcement bars shall be removed and replaced with supports that have minimal visual impacts to character-defining features, such as the central emblem. The appearance and materials of the parapet shall be repaired and restored using documentary evidence, and wall materials shall be patched and refinished to match existing.

Recommended Condition of Approval, ES-25: HR-4, Windows. Nonoriginal vinyl windows shall be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, surfaces, or materials. Using documentary evidence or extant original windows, new windows shall be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames. Similarly, the altered original window on the façade shall be replaced and its original character/appearance restored.

4.3.5. 410 Bush Street (ES-26)

Property Information

The 410 Bush Street existing site (ES-26) is a 43,557-square-foot, three-story building constructed in 1913, and located on Bush Street between Kearny Street and Grant Avenue, near St. Mary's Square in the Chinatown neighborhood.[1069] The building has a capacity of 264 occupants (229 students and 35 faculty and staff members). The site is Lot 007 in Assessor's Block 270.

Prior to AAU occupation in 1994, the building appeared to have been occupied by the several office tenants including a San Francisco branch of the United Way.[1070] The building has two floors above ground-floor parking and office space. AAU converted the property in 1994 to a postsecondary educational institution and currently uses the space for classrooms, labs, art studios, offices, and a gallery. The site is not individually served by any AAU shuttle routes.

ES-26 is in a C-3-O (Downtown Office) Zoning District. The C-3-O Zoning District principally permits office and institutional uses with some related retail and service uses. The height and bulk district is 80-130-F. ES-26 is located within the Downtown Planning Area.

Tenant Improvements and Renovations

AAU applied for sign permits in 1994, renewed its sign permits in 2005 and later removed two painted wall signs and a projecting wall sign in 2010. AAU added sheetrock to the third floor and closed an end of open ceiling/wall in a sculpture room in 1997. AAU installed an Americans with Disabilities Act (ADA) accessible bathroom, fire alarm system, a kiln, and other life safety upgrades in 1998 and 1999. In response to a notice of violation (NOV), AAU performed fire safety upgrades to install roof ducts connected to an exhaust fan and supply fan, install metal staircase, handrail, light well, and fire alarm in 2009. AAU replaced windows on the east (alley) elevation in 2010. AAU replaced two existing kilns and a minor adjustment to a 1-hour passageway in 2010. In response to an NOV, AAU performed additional fire safety improvements to remove obstructions to fire alarm and exit egress, obtain a permit for kilns, and provide basement egress in 2011. AAU installed new fire sprinklers in 2011 and performed additions to its fire alarm system in 2014.[1071]

AAU also added a box sign attached to a perimeter fence without a building permit. AAU also added a security camera in the main entryway, painted exterior tile panels, and added black tile to a planter

[1069] Square footage, number of stories, cross streets, and year built information for all properties in Section 3.2 are from the San Francisco Information Map. Available online at http://ec2-50-17-237-182.compute-1.amazonaws.com/PIM/. Accessed on November 9 and 17, 2015.
[1070] *2011 IMP*, p. 77.
[1071] Building Permits obtained for the improvements and renovations at ES-25 are: BPA #9494295 and #9494294 (signs), #200512130163 and #200511218690 (sign permit renewal), #201006033730 and #201003228698 (wall sign and painted sign removal), #9725277 (sheetrock and sculpture room work), #9802789 (ADA bathroom), #9820053 (fire alarm), #9820053 (kiln), #9904994 (life safety upgrade), #200904297343 and #200909177038 (Notice of Violation [NOV] #20099980), #201007297763 (kiln replacement and 1-hour passageway adjustment), #201104083776 (second response to NOV), #201105035268 (fire sprinklers), #201404012209 (fire alarms), and #201008098351 (windows).

to create a bench.[1072] A metal gate was installed by AAU across St. George Alley at Pine Street, limiting access to the alley by others.

Required Project Approvals

A Major Permit to Alter (PTA) is required under San Francisco Planning Code (Planning Code) Article 11 to legalize or modify past building alterations performed without benefit of permit

Building Description

Originally designed as a parking garage, 410 Bush Street (ES-26) is a 1913 concrete building redesigned and remodeled as an International Style-inspired office building in 1946. The building is rectangular in plan and set flush to the sidewalk. It occupies a long rectangular, sloped lot that runs the length of the City block, extending along St. George Alley north to Pine Street. The primary elevation faces Bush Street. The building is capped with a flat roof, terminating in shallow copping along the roofline. Spanning the façade, a cantilevered, unadorned wall projection divides the ground-floor entrance and windows with the smooth stucco-clad walls on the top stories. Characteristic of the style, the structure features smooth, unornamented wall surfaces with minimal detailing.

On the first floor, the primary elevation consists of a recessed storefront entrance, with full-length aluminum-framed windows and paired entrance doors, in the western portion of the facade. Two smooth, stucco-clad piers flank the storefront and entrance. On the southeast corner of the building are recessed panels clad in decorative tile (based on historic Photographs, the tiles appear to have been glazed and possibly earth-toned in color; the tiles were painted over at an unknown date). Directly above the first story is a boxed overhang, which turns the corner and partly extends along the secondary elevation in the alley. The second and third stories are clad in smooth with no fenestration.

The smooth-stucco sheathing of the primary elevation extends on the side (eastern) elevation partially, approximately one bay deep. On the east elevation, the first floor displays ribbon windows on the first and second stories, with each set enclosed by a stucco-clad frame. East elevation fenestration generally consists of single, rectangular, flushed casement windows and aluminum sliders. Exterior walls along the eastern and northern (rear) elevation, facing Pine Street, display traces of board-formed concrete stucco with no fenestration. The rear elevation along Pine Street has a one-story portion featuring three roll-up doors of varying sizes and a mansard roofline. The traces of board-formed concrete are visible throughout the rear elevation. A metal chain-link fence restricts access to the roll-up doors from Pine Street (for representative photographs refer to Photographs 160 and 161).

[1072] Academy of Art University, Memorandum to SWCA: Alteration Chronologies, February 2, 2016.

Photograph 160. 410 Bush Street.

Photograph 161. Pine Street elevation of subject property.

Site History

According to building permits on file with the San Francisco Planning Department, 410 Bush Street was initially designed and constructed in 1915 as the St. George Garage.[1073] This date falls within the era of rapid, post-fire construction within the Kearny-Market-Mason-Sutter Conservation District, with most of the district's architecturally significant buildings constructed between 1907 and 1918. Made of reinforced concrete and rising 41 feet, the building was commissioned by Charles F. Haulou. San Francisco architects the O'Brien Brothers, Inc. constructed the property at a cost of $25,000 in early 1915, with additional structural work carried out by the O'Brien Brothers in July 1915. The O'Brien Brothers completed numerous commissions in San Francisco, with a focus on commercial and automobile-related designs in the 1910s and 1920s. By 1933 and into the early 1940s, the property, now owned by the Grant Company, continued operating as a garage. All floors of the building, including the basement, were originally used for parking.

[1073] Building Permit 60670.

In the immediate postwar period, in 1946/1947, the St. George Garage was converted to office space by the Westinghouse Electric Company.[1074] The early twentieth-century appearance and features of the building were replaced, and the façade underwent a $150,000, Mid-Century Modern make-over by San Francisco architect Albert F. Roller, in collaboration with contractors Barrett & Hilp.

A native of San Francisco, Roller (1891–1981) worked in the offices of Coxhead & Coxhead, Ward & Blohme, among others, before opening his own practice in 1926. Roller's many commissions in San Francisco include 100 California Street (Bethlehem Steel Building, 1959), completed by Roller and Welton Becket in 1959, 444 Taylor Street (National Broadcasting Company Studios, 1941), 1111 California Street (Masonic Auditorium, 1958), and 155 Hayes Street (AAA Building, 1959).[1075] In the postwar period, Roller served on the San Francisco Redevelopment Agency between 1951 and 1953, as well as the San Francisco Art Commission between 1955 and 1958.[1076] According to the *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, Roller is recognized as a master architect in San Francisco.[1077]

As presented in *Architect and Engineer* in November 1949, "The Westinghouse Electric Corporation's new three-story building at 410 Bush Street in San Francisco now provides a thoroughly modern, centrally located, office headquarters for the company's engineering sales and executive personnel… The new quarters affords ample space to meet current and immediate future office space requirements and fills a long need for consolidation in one downtown, central location."[1078] Following the remodel, the building spanned approximately 40,000 square feet, with the 40-foot storefront facing Bush Street.

By 1967, the property was owned and occupied by Commercial Union Insurance Group, which remained in the building through at least 1975. At the time of the 1978 San Francisco Architectural Quality Survey, 410 Bush Street still retained signage for Commercial Union Company and appeared to be for sale at the time. Until AAU occupied the property in 1994, a variety of tenants appear to have occupied its office space, including a San Francisco branch of the United Way, which operated in the building from the early 1980s until 1994.

California Register of Historical Resources Evaluation

As part of the San Francisco Architectural Heritage Survey, 410 Bush Street (ES-26) was classified as "Category D, Minor or No Importance." The building is also classified as an "Unrated Building" within the Article 11 Kearny-Mason-Market-Sutter Conservation District, adopted in 1985. As of 2015, the property does not appear to have been subject to further survey or evaluation.

Although 410 Bush Street possesses a number of character-defining features typical for a low-rise International Style commercial property, the property does not appear to meet the eligibility criteria established in the *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic*

[1074] Building Permit 93411; *The Architect and Engineer*. November 1949, p. 15.
[1075] City and County of San Francisco Planning Department, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. San Francisco Planning Department, 2011, p. 261.
[1076] San Francisco Chronicle, Albert F. Roller, obituary, July 13, 1981.
[1077] *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, p. 261.
[1078] Architect and Engineer, New Westinghouse Building, San Francisco, Albert F. Roller, Architect, Barrett & Hilp, General Contractors, November 1949, p. 15.

Context Statement. In terms of significance on the basis of architectural design, eligibility at each level is reserved for buildings reflecting a "notable full expression of the International Style."[1079] As an early twentieth-century garage remodeled to an International Style office building, the design and character-defining features reflecting this association are relatively modest and not a full expression but rather one driven by the extant property.

The evaluation also considered potential CRHR eligibility for the property's embodiment of a significant era/pattern of commercial development in downtown San Francisco. Available evidence did not suggest that the property meets CRHR criteria for this association. The building was not the first San Francisco office of Westinghouse Electric; the renovation of the garage was completed to consolidate the company's personnel in a single location.[1080] The property also does not appear to possess any other direct associations with a significant event or pattern of events, or persons. Therefore, the property appears ineligible for the CRHR as an individual resource. However, 410 Bush Street is considered to be of interest to local planning (California Historic Resources Code 6L), as a notable remodeling project by master architect Albert Roller and as an example of a low-rise International Style commercial property in downtown San Francisco.

Although 410 Bush Street does not appear individually eligible for the CRHR, it falls within the Kearny-Market-Mason-Sutter Conservation District and is therefore subject to its provisions. The alteration history for the building, along with available building permits on file with the San Francisco Planning Department, is described below, followed by a discussion of compliance with Article 11 and its provisions for Category IV buildings.

Article 11 Analysis

410 Bush Street is a Category V (Unrated) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11 properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[1081]

Article 11 defines five levels of properties within Conservation Districts: Categories I and II ("Significant Buildings"), Categories III and IV ("Contributory Buildings"), and Category V ("Unrated"). Each level is subject to varying types of design review. For Category V buildings within Conservation Districts, "all major exterior alterations…shall be compatible in scale and design with the District as set forth in Sections 6 and 7 of the Appendix which describes the District."[1082]

Guidance and requirements for changes to Article 11 Conservation District properties are also provided in *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* (San Francisco Planning Department, June 2009) and *Article 6, Sign Controls*

[1079] *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, p. 178.
[1080] Architect and Engineer, November 1949, p. 15.
[1081] Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.
[1082] Planning Code, Article 11, Section 1111.6.d.

(San Francisco Planning Department, November 2012). Article 11 indicates that signs within Conservation Districts are subject to *Article 6, Signs*.

Two alterations to 410 Bush Street involve changes for which applicable design requirements provide guidance. These changes are the projecting, illuminated wall signs on the façade and rear elevation and black and red painted recessed tile panels on the primary and east elevations.

In terms of signage, Article 11, Section 1111.6, *Standards and Requirements for Review of Applications for Alterations* states that

> "an application for a business sign, general advertising sign, identifying sign, or nameplate to be located on a Significant or Contributory Building or any building in a Conservation District shall be subject to review by the HPC pursuant to the provisions of this Article. The HPC shall disapprove the application or approve it with modifications if the proposed location, materials, typeset, size of lettering, means of illumination, method of replacement, or the attachment would adversely affect the special architectural, historical or aesthetic significance of the subject building or the Conservation District."[1083]

The Historic Preservation Design Standards established by the San Francisco Planning Department for signage and awnings within the Kearny-Market-Mason-Sutter Conservation District offer the follow guidance and requirements for signs: "Methods of illumination: Ideally, all signs should appear to be indirectly illuminated. This is commonly achieved by installing an external fixture to illuminate the sign or by using a reverse channel halo-lit means of illumination" and "All conduit required for all new signage must be concealed and may never be attached or left exposed on the face of the building, the sign structure, or the sign itself."[1084]

Article 6 establishes the following requirements for signs within Conservation Districts: signs with internally illuminated box signs with glass or plastic lenses are not permitted. In addition, signage above the architectural base of the building are not permitted.[1085]

The projecting box signs located on the façade (south) and rear (north) elevations of 410 Bush Street are inconsistent with current guidelines and requirements for signage within the Kearny-Market-Mason-Sutter Conservation District. The signs appear to be internally illuminated box signs with plastic lenses; on the façade, the sign is supplied power via conduit, which is currently exposed and attached to the face of the building. Under Article 11 guidelines, illuminated box signs are not permitted, and conduit must be concealed, rather than attached to and/or exposed on the face of the building, the sign structure, or the sign itself.[1086]

Article 11, Appendix E, Section 1117(3), "Materials and Colors," states that "traditional light colors should be used [in the Kearny-Market-Mason-Sutter Conservation District] in order to blend in with the character of the district." Based on historic Photographs, the recessed tile panels on the façade

[1083] Planning Code, Article 11, Section 1112.c.
[1084] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*, June 2009, p. 3.
[1085] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.
[1086] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11-13.

and east elevation appear to have been glazed tile (rather than overpainted tile). The current paint colors of these tile panels are black and red, which appears to be inconsistent with current guidelines for the Conservation District.

Conclusion

The following recommended Condition of Approval is suggested to facilitate bringing the building at 410 Bush Street (ES-26) into compliance with applicable Article 11 guidelines:

Recommended Condition of Approval, ES-26: HR-1, Signage. The exterior signs on the façade (south) and rear (north) elevations do not appear to comply with current guidance for signage within Conservation Districts. To bring the signage into compliance AAU shall remove the project box signs, repair/patch and refinish the exterior wall to match existing in materials and appearance, and install a new sign that is indirectly illuminated as specified in applicable guidelines for signage in Article 11 Conservation Districts.

This page intentionally left blank.

5. LIST OF PREPARERS

5.1. ESTM AUTHORS

San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

Environmental Review Officer:	Sarah Jones
Planning Coordinator:	Chelsea Fordham
Senior Environmental Planner:	Rick Cooper
Environmental Planner:	Jenny Delumo
Transportation Planner:	Manoj Madhavan
	Susan Mickelson
Current Planner:	Mary Woods
	Tina Chang
Historic Preservation Planner:	Shelley Caltagirone

5.2. ESTM CONSULTANTS

SWCA/Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA 94107

Project Manager:	Barbara Sahm
Deputy Project Manager:	Ian Todd
	Debi Howell-Ardila
	Liz Haines
	Juliana Lehnen
	Natalie Loukianoff
	Debbi Smith
	Linda Tucker Burfitt
	Steven Treffers
	Shayne Watson

CHS Consulting Group
220 Montgomery Street, Suite 346
San Francisco, CA 94104

Chi-Hsin Shao
Migi Lee

Environmental Science Associates, Inc.
550 Kearny Street, Suite 800
San Francisco, CA

Tim Rimpo
Stan Armstrong

5.3. ACADEMY OF ART UNIVERSITY

Academy of Art University
77 New Montgomery Street
San Francisco, CA 94105

Dr. Elisa Stephens, President
Joan Bergholt, Vice President, Institutional Effectiveness

Morrison Foerster
425 Market Street
San Francisco, CA 94105

Zane Gresham, Esq.
Corinne Quigley, Esq.

APPENDIX TDM:

Transportation Demand Management

This page intentionally left blank.

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

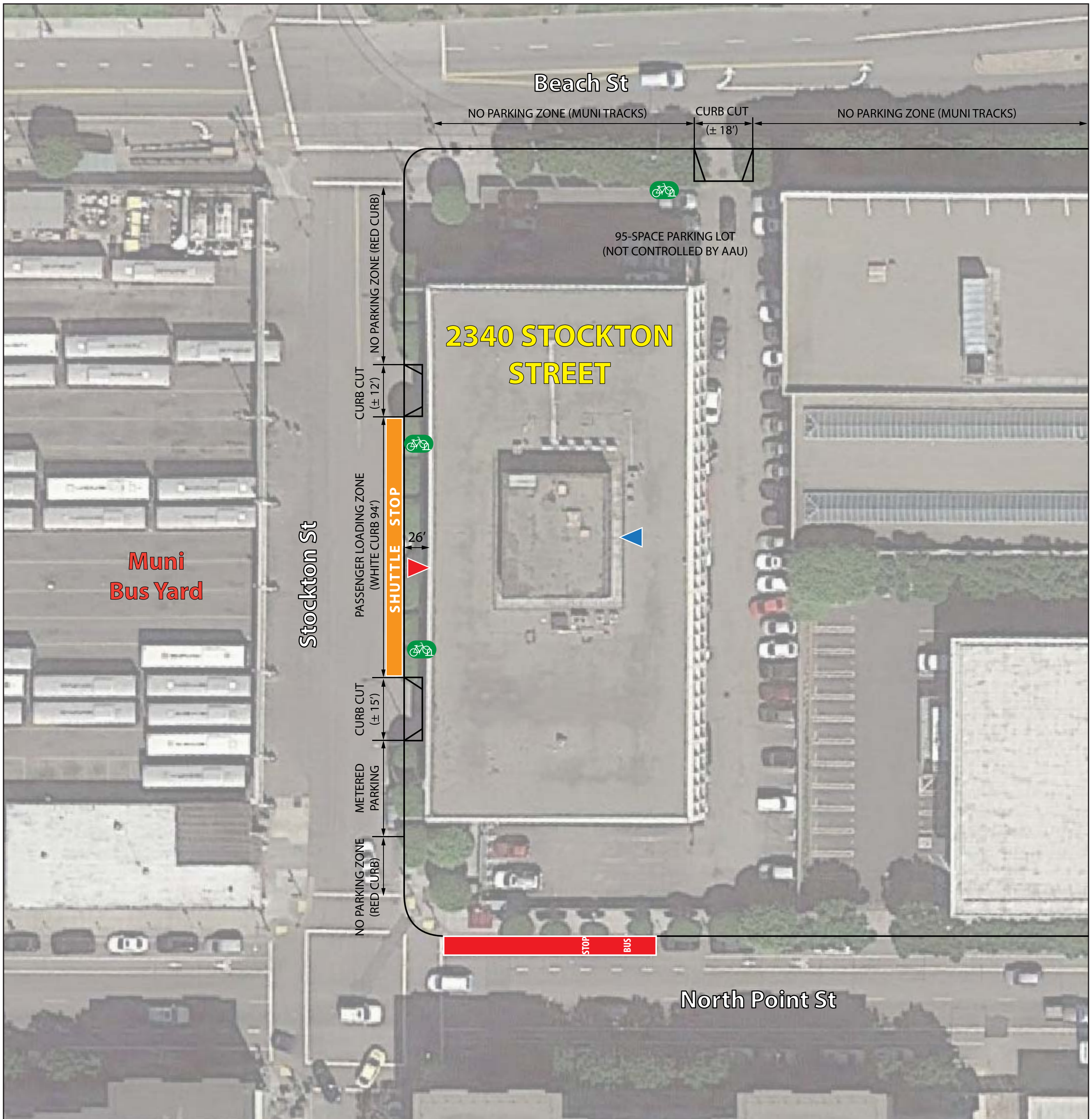
Academy of Art University (AAU) Facilities Draft Transportation Management Plan (TMP)

1. Introduction

The Draft Transportation Management Plan (TMP) is a management and operating plan designed to provide multimodal access to existing and future AAU sites. The purpose of the plan is to ensure safe and efficient access by promoting and facilitating the use of AAU's shuttle service, nearby public transit services and pedestrian and bicycle infrastructure for travel to and from AAU facilities, thereby reducing transportation impacts on the surrounding neighborhoods. The plan's primary goal is to facilitate multi-modal access to/from the AAU facilities for all faculty, staff and students. The purpose of the TMP is to outline strategies to optimize access to and from AAU facilities within the constraints of the existing transportation network. Its main goal is to ensure safe and efficient access for all modes with a particular focus on promoting pedestrian, bicycle, and transit access to all AAU facilities and adjacent mix of uses, thereby reducing impacts on the transportation network.

2. AAU Existing Sites

The following figures represent the existing transportation conditions for the 23 AAU sites that were required to obtain a change of use permit and were studied within the Existing Site Technical Memorandum (ESTM). This memorandum provides the individual, site-specific discussions of environmental effects associated with the unauthorized changes in use for the 23 existing sites requiring approval of legislative amendments, CU authorizations, and/or building permits. The following AAU site figures provide existing shuttle stop locations and bus lines, commercial loading passenger loading zones, bicycle parking location, and building pedestrian access.



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Not Required	AAU: 32 Class II Spaces	D (30 min), E (30 min)

Class II AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location

* Dimensions are Approximate.

N
Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 1 - ES-1: 2340 STOCKTON ST - EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Not Required	AAU: 14 Class II Spaces	Shuttle Service Discontinued as of April 18, 2016

- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location (Nearest Stop at Beach Street/ Jones Street)

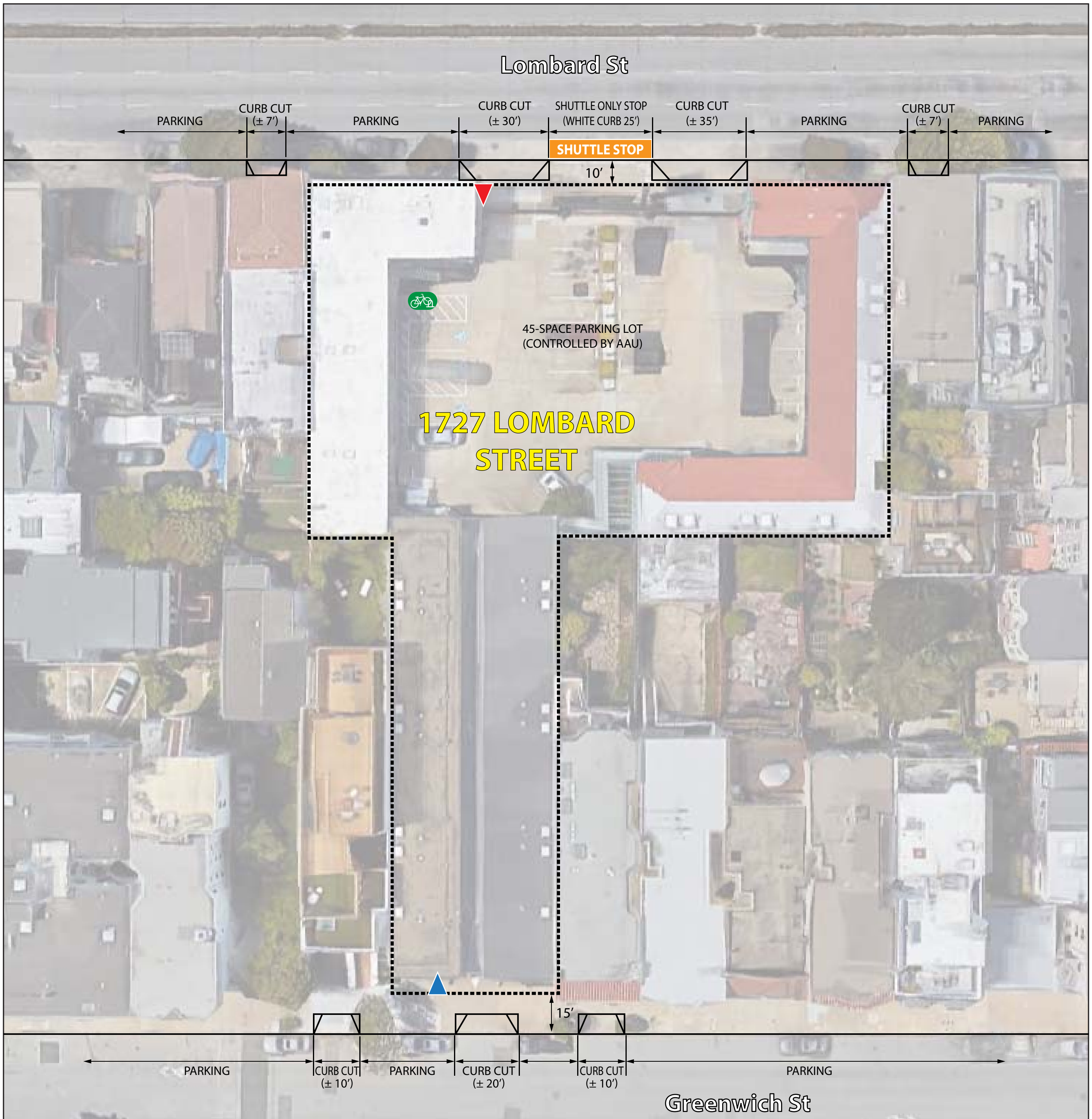
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 2 - ES-2: 2295 TAYLOR ST SITE DIAGRAM EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 20 Class II: 3	AAU: 16 Class II Spaces	M (20 min)

Class II AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location

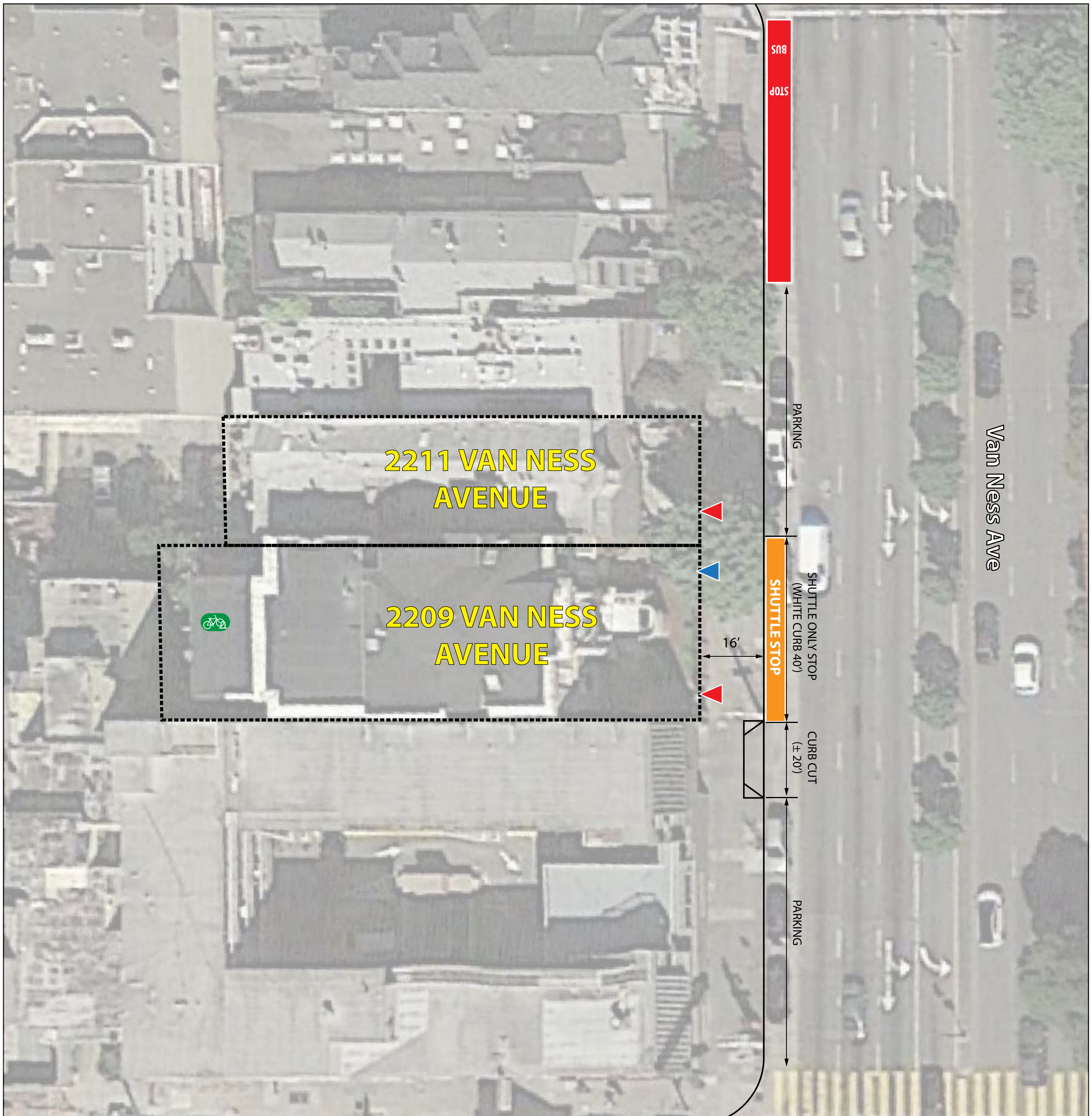
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

**FIGURE 3 - ES-3: 1727 LOMBARD ST
EXISTING CONDITION**



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
2211 Van Ness Ave - Class I: 5 Class II: 3 2209 Van Ness Ave - Class I: 14 Class II: 3	2209 Van Ness Ave: 9 Class II Spaces	M (20 min)

Class II AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location

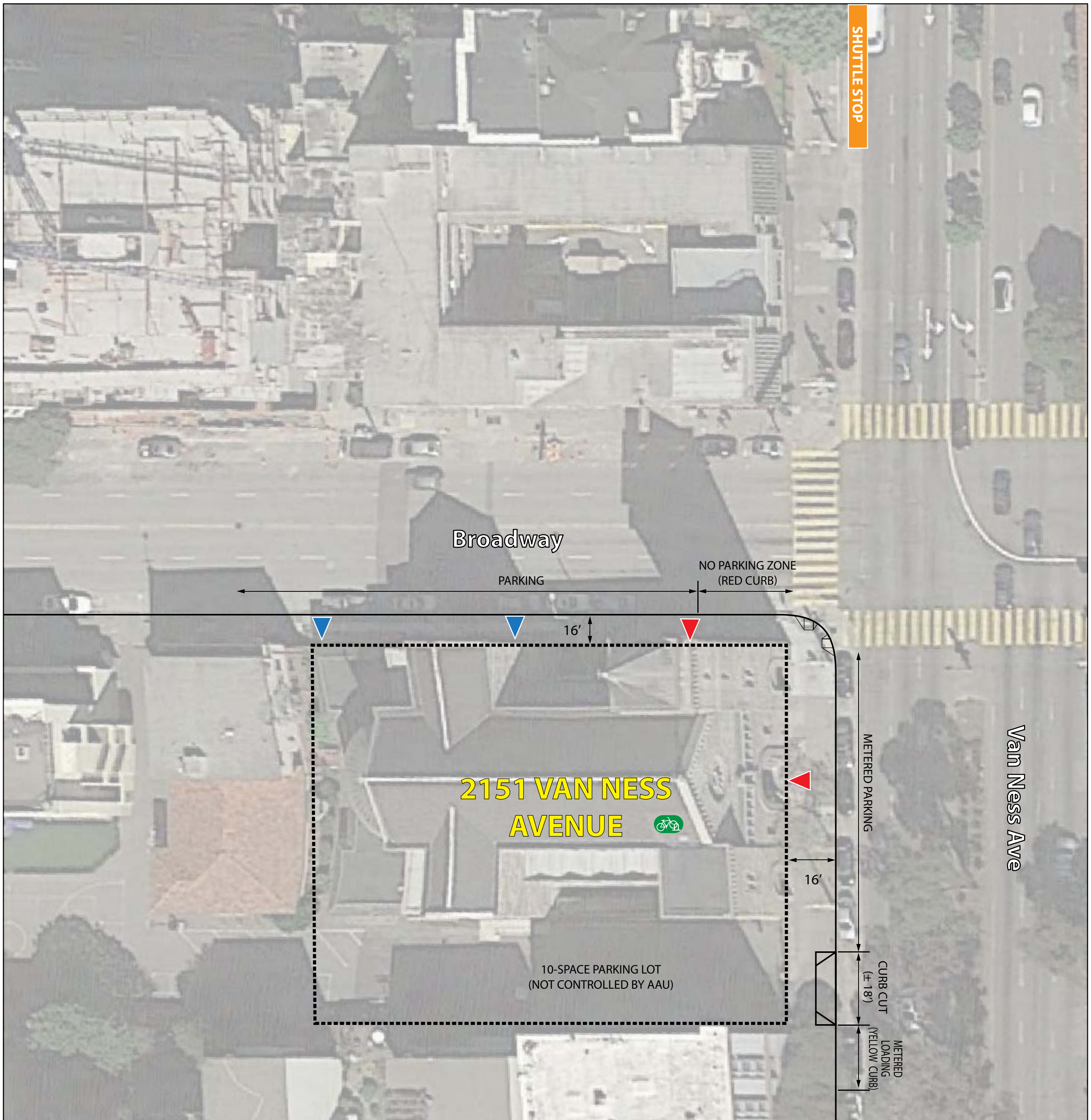
* Dimensions are Approximate.

N
Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 4 - ES-4 & 5: 2211 AND 2209 VAN NESS AVE EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Not Required	AAU: 8 Class II Spaces	M (20 min)

- Class II AAU Bicycle Parking (1 Rack with 8 Spaces)
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location (Nearest Stop at 2209 Van Ness Avenue)

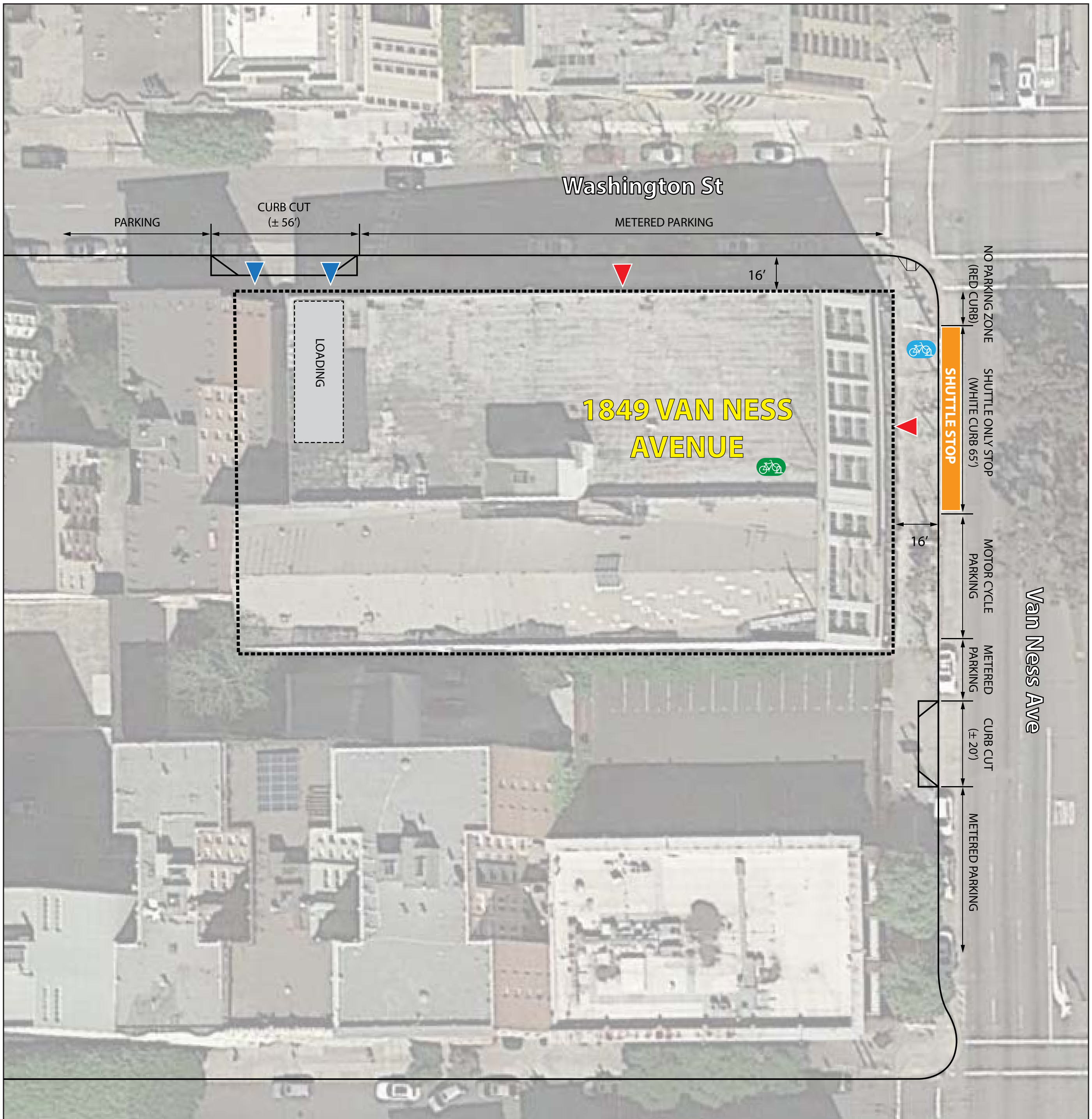
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 5 - ES-6: 2151 VAN NESS AVE
EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Not Required	AAU: 30 Class II Spaces Public: 2 Class II Spaces	M (20 min)

- Class II Public Bicycle Parking (1 Rack with 2 Spaces)
- Class II AAU Bicycle Parking (6 Racks with 28 Spaces)
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location

* Dimensions are Approximate.

N
Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 6 - ES-8: 1849 VAN NESS AVE EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 5 Class II: 3	AAU: 6 Class II Spaces	M (20 min)

- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location

* Dimensions are Approximate.

Not to Scale

SOURCE: CHS Consulting Group, 2016.

FIGURE 7 - ES-9: 1916 OCTAVIA ST EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Not Required	None	D (30 min), E (30 min), Sutter Express (25 min)

Primary Pedestrian Access

Secondary Pedestrian Access

Shuttle Stop Location (Nearest Stop at 625 Polk Street)

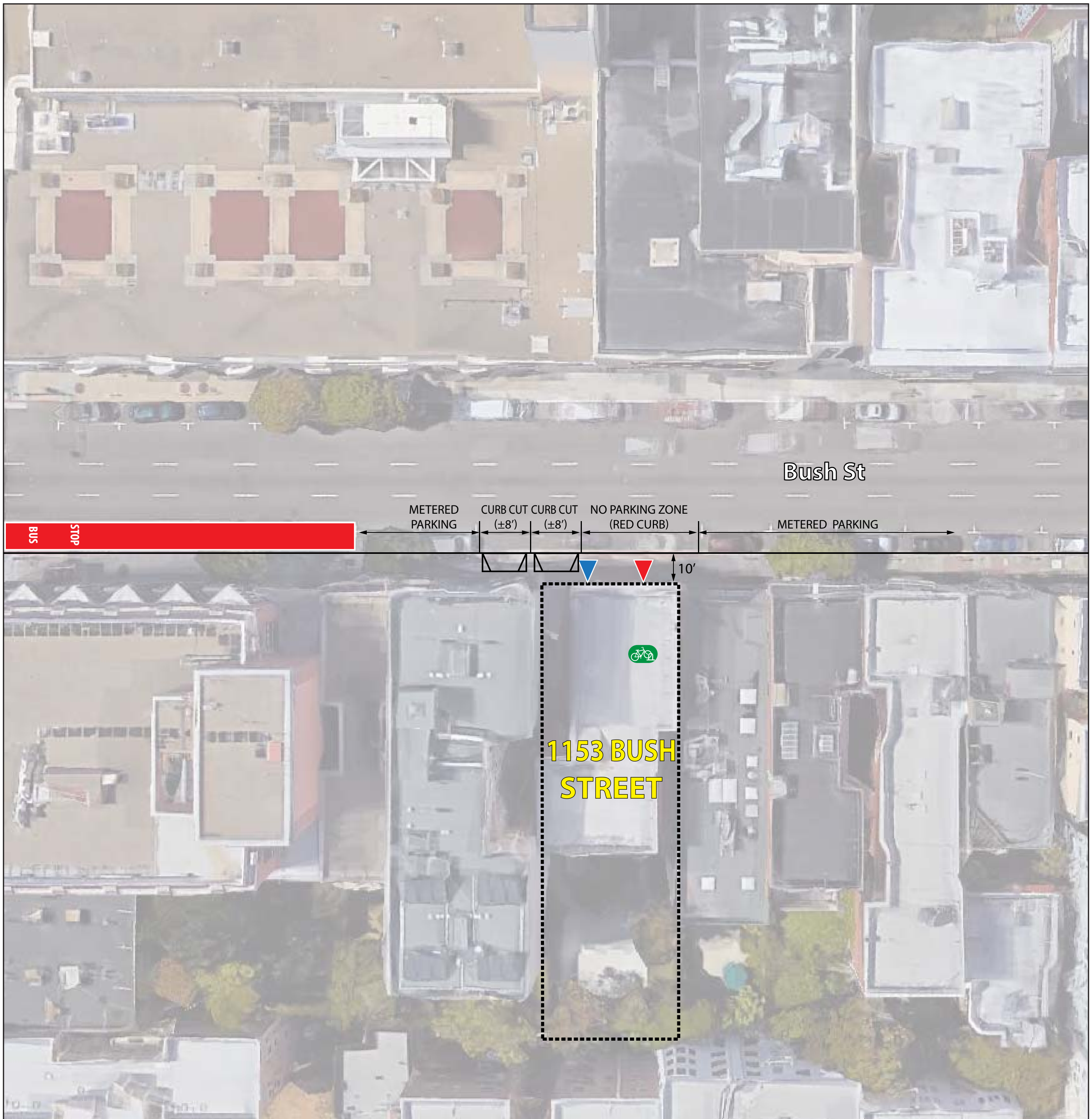
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 8 - ES-10: 950 VAN NESS AVE EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 9 Class II: 3	AAU: 8 Class II Spaces	D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location (Nearest Stop at 860 Sutter Street)

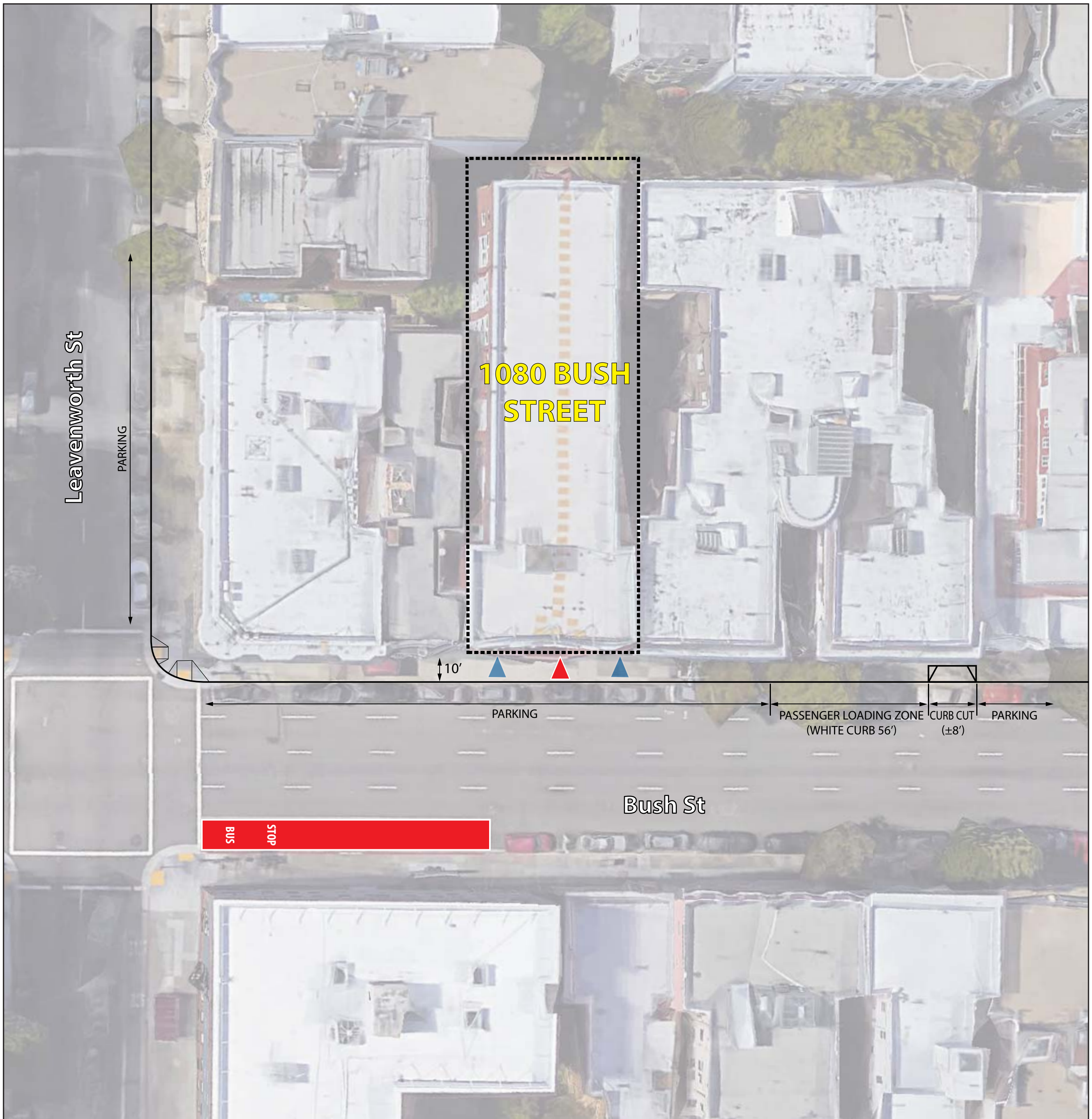
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 9 - ES-11: 1153 BUSH ST EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 29 Class II: 3	None	D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location (Nearest Stop at 860 Sutter Street)

N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 10 - ES-12: 1080 BUSH ST EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
860 Sutter St - Class I: 42 Class II: 3 817-831 Sutter St - Class I: 49 Class II: 3	None	D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

- ▲ Primary Pedestrian Access
- ▲ Secondary Pedestrian Access
- Shuttle Stop Location

N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 11 - ES-13 AND 14: 860 AND 817-831 SUTTER ST EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 36 Class II: 3	AAU: 8 Class II Spaces	Sutter Express (25 min)

- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location

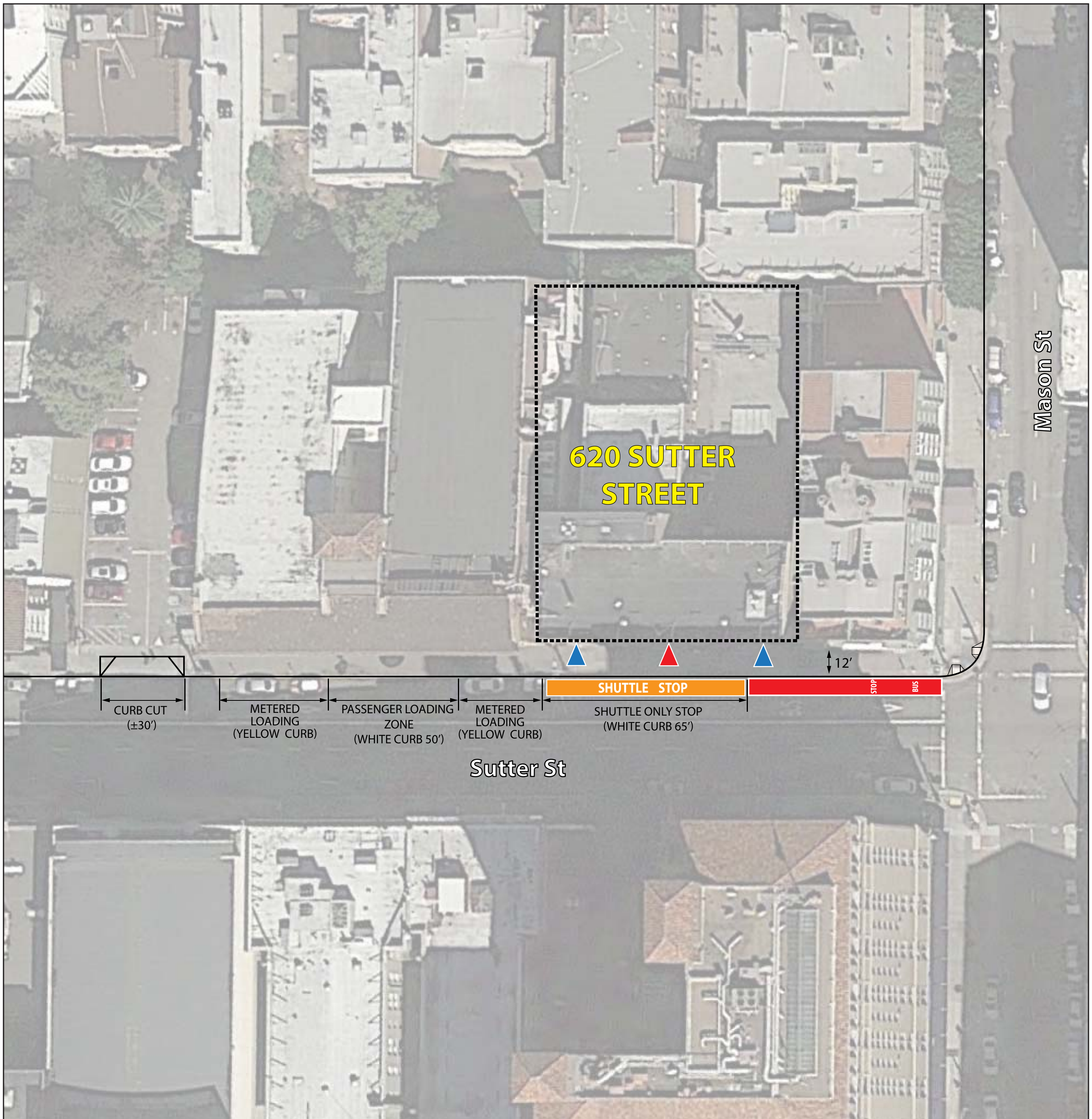
N
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 12 - ES-16 AND 17: 1069 AND 1055 PINE ST EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 31 Class II: 3	None	D, E, G (30 min); H, I (20 min); Sutter Express (25 min)

▲ Primary Pedestrian Access

▲ Secondary Pedestrian Access

▬ Shuttle Stop Location

N

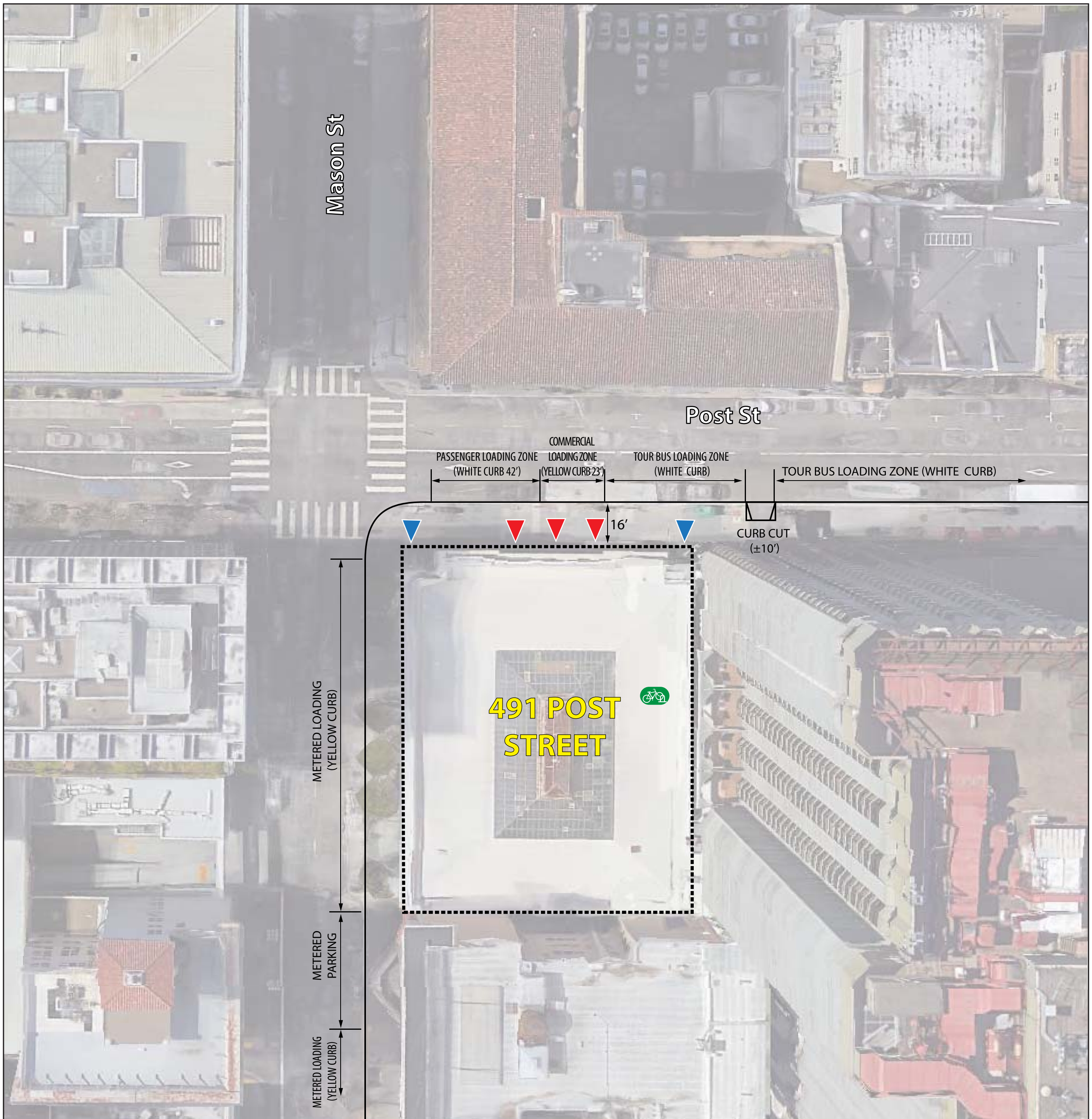
Not to Scale

* Dimensions are Approximate.

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 13 - ES-20: 620 SUTTER ST
EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 2 Class II: 4	AAU: 20 Class II Spaces	D, E, G (30 min); H, I (20 min); Sutter Express (25 min)

Class II AAU Bicycle Parking Location

Primary Pedestrian Access

Secondary Pedestrian Access

Shuttle Stop Location (Nearest Stop at 620 Sutter Street)

* Dimensions are Approximate.

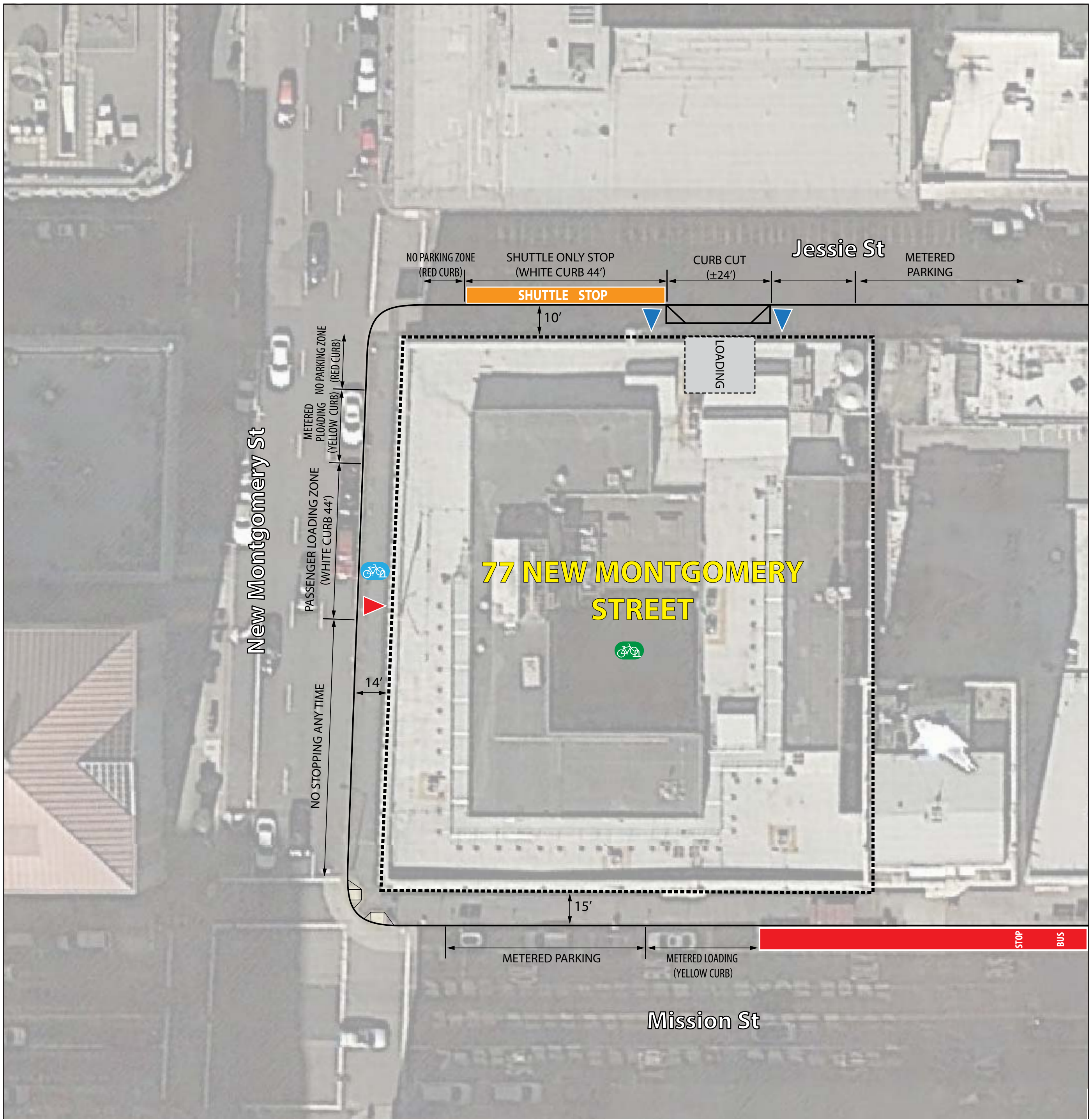
N

Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 14 - ES-23: 491 POST ST EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 7 Class II: 15	AAU: 8 Class II Spaces Public: 8 Class II Spaces	G (30 min), Hayes Express (30 min)

Class II Public Bicycle Parking Location
Class II AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location

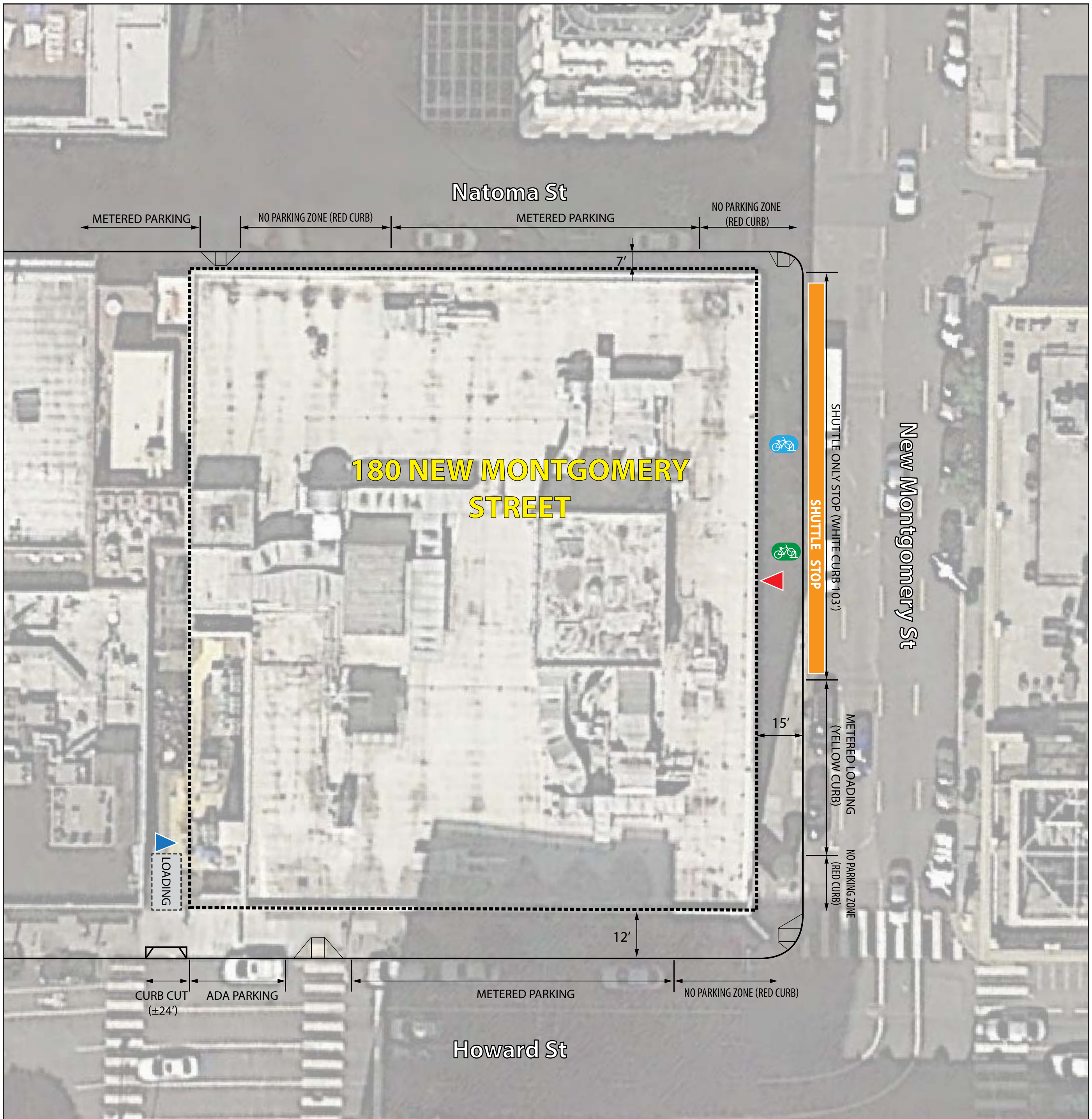
* Dimensions are Approximate.

N
Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 15 - ES-27: 77 NEW MONTGOMERY ST EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 10 Class II: 19	AAU: 16 Class II Spaces Public: 12 Class II Spaces	D, E, G (30 min); H, I (20 min)

- Class II Public Bicycle Parking Location
- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location

* Dimensions are Approximate.

N

Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 16 - ES-28: 180 NEW MONTGOMERY ST EXISTING CONDITION

Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 5 Class II: 10	AAU: 36 Class II Spaces	G (30 min)

- Class II AAU Bicycle Parking Location
- Primary Pedestrian Access
- Secondary Pedestrian Access
- Shuttle Stop Location

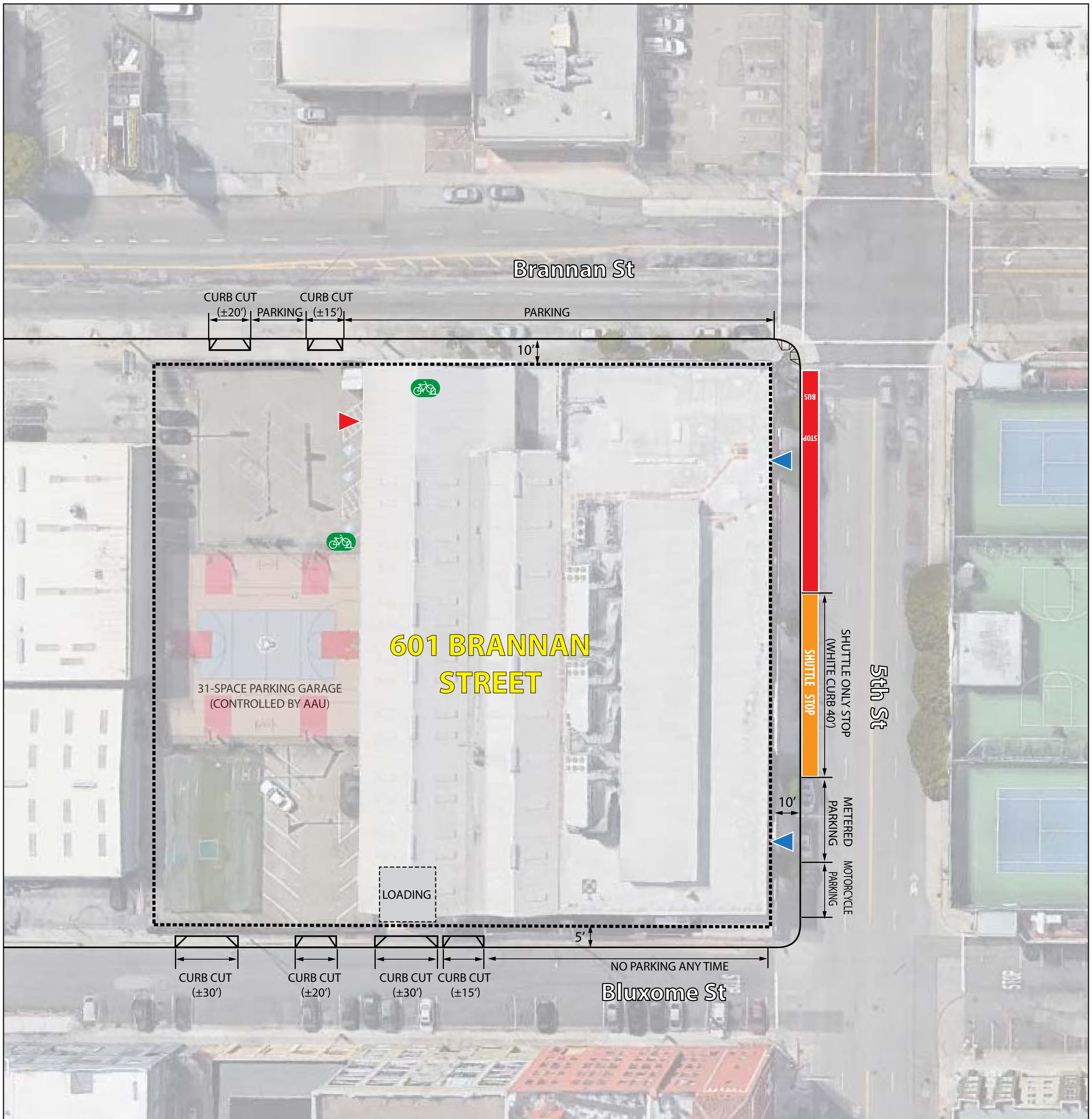
* Dimensions are Approximate.

Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 17 - ES-30: 58-60 FEDERAL ST
EXISTING CONDITION



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
Class I: 4 Class II: 7	AAU: 60 Class II Spaces	G (30 min); H, I (20 min)

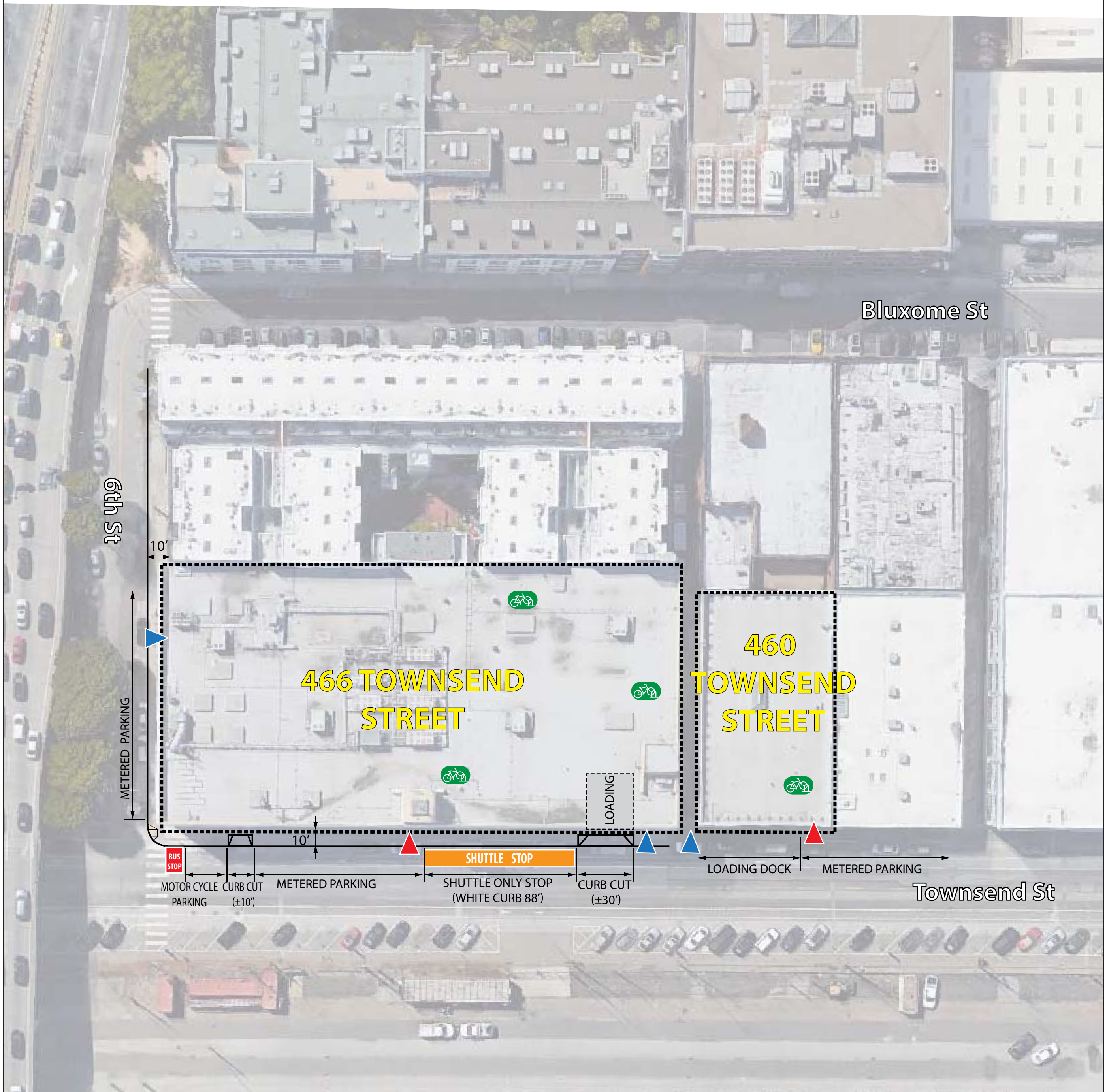
Class II AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
Shuttle Stop Location

* Dimensions are Approximate.

N
Not to Scale

SOURCE: CHS Consulting Group, 2016.

**FIGURE 18 - ES-31: 601 BRANNAN ST
EXISTING CONDITION**



Bicycle Parking Planning Code Requirement	Bicycle Parking Supply	Shuttle Bus Service (PM Peak Hour Headways)
460 Townsend St - Class I: 1 Class II: 3 466 Townsend St - Class I: 6 Class II: 11	460 Townsend St - 5 Class II Spaces 466 Townsend St - 20 Class II Spaces	G (30 min); H, I (20 min)

Class II AAU Bicycle Parking Location

Primary Pedestrian Access

Secondary Pedestrian Access

Shuttle Stop Location

* Dimensions are Approximate.

N

Not to Scale

SOURCE: CHS Consulting Group, 2016.

ACADEMY OF ART UNIVERSITY ESTM

FIGURE 19 - ES-31 AND 34: 460 AND 466 TOWNSEND ST
EXISTING CONDITION

3. Transportation Policies for Existing and Future AAU Facilities

These policies represent staff recommendations of Conditions of Approval for the existing and future AAU sites in order to provide safe and efficient multi-modal transportation access for all users.

3.1 Traffic

Condition of Approval (Draft EIR Improvement Measure I-TR-1): Implement Transportation Demand Management Strategies to Reduce Single-Occupancy Vehicle Trips. AAU shall implement a Transportation Demand Management (TDM) Program that seeks to minimize the number of single-occupancy vehicle trips (SOV) generated by the Proposed Project for the lifetime of the project. The TDM Program targets a reduction in SOV trips by encouraging persons to select other modes of transportation, including walking, bicycling, transit, car-share, carpooling, and/or other modes.

1. Identify TDM Coordinator: The project sponsor should identify a TDM coordinator for all of the project sites. The TDM Coordinator is responsible for the implementation and ongoing operation of all other TDM measures described below. The TDM Coordinator could be a brokered service through an existing transportation management association (e.g., the Transportation Management Association of San Francisco, TMASF), or the TDM Coordinator could be an existing staff member (e.g., property manager); the TDM Coordinator does not have to work full-time at the project site. However, the TDM Coordinator should be the single point of contact for all transportation-related questions from Project occupants and City staff. The TDM Coordinator should provide TDM training to other Project staff about the transportation amenities and options available at the project sites and nearby.
2. Provide Transportation and Trip Planning Information to Building Occupants:
    a. Move-in packet: Provide a transportation insert for the move-in packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes could be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional web-based alternative transportation materials (e.g., NextMuni phone app). This move-in packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant or, in the case of the Project Sites, to all current building occupants prior to building permit issuance. Provide Muni maps, San Francisco Bicycle and Pedestrian maps upon request.
    b. New-hire packet: Provide a transportation insert in the new-hire packet that includes information on transit service (local and regional, schedules and fares), information on where transit passes could be purchased, information on the 511 Regional Rideshare Program and nearby bike and car share programs, and information on where to find additional web-based alternative transportation materials (e.g., Next Muni phone app). This new-hire packet should be continuously updated as local transportation options change, and the packet should be provided to each new building occupant. Provide Muni maps, San Francisco Bicycle and Pedestrian maps upon request.
3. Consider a subsidy for staff/faculty for Muni monthly passes with intital hire or an on-going basis.

3.2 Transit

Condition of Approval: Transportation Sustainability Fee (TSF). For all existing and future properties, AAU shall pay a fee in the amount of the applicable Transportation Sustainability Fee (TSF). The TSF applies to non-residential developments and larger market-rate residential developments citywide. The TSF consolidates a number of non-residential land use categories (except for Hospitals and Health Services), consistent with other Planning Code impact fees. Rates are as follows:

Transportation Sustainability Fee (TSF) Fee Schedule

Land Use Categories	Fee ($/GSF)
Residential, 21-99 units **Residential, all units above 99 units**	$ 7.74 for all GSF of Residential use in the first 99 dwelling units $ 8.74 for all GSF of Residential use in all dwelling units at and above the 100th unit
Non-Residential, except Hospitals and Health Services, 800-99,999 GSF **Non-Residential, except Hospitals and Health Services, all GSF above 99,999 GSF** **Hospitals** **Health Services, all GSF above 12,000 GSF**	$ 18.04 for all GSF of Non-Residential uses less than 100,000 GSF. $19. 04 for all GSF of Non-Residential use greater than 99,999 GSF. $18.74 per calculation method in Sec. 411A.4(d). $11.00 for all GSF above 12,000 GSF
Production, Distribution and Repair (PDR)	$ 7.61

3.3 AAU Shuttle Bus Service Policy

AAU provides two types of shuttle bus services: fixed-route and on-demand. Fixed-route shuttle buses transport students and staff among Academy of Art academic buildings and residence halls free of charge during building hours: before and after classes, workshops, lab hours, meals and studio times. Access to AAU fixed-route shuttle bus services is restricted to students, faculty, and staff of Academy of Art University. ID badges are required to board vehicles. Riders without ID are not permitted unless accompanied by students or staff with ID.

AAU's fleet of buses and vans also provides on-demand shuttle service for class field trips, student activities, athletics, faculty & staff transportation needs, and regular voluntary and charitable donations of transportation for local community needs. On-demand shuttle service is limited to thirty trips per day, and must be requested in advance by departmental administrative staff via web-based scheduling software.

Fixed Route Structure

Routing needs are determined by location of facilities, clustered proximity of these buildings to one another, student population density within these clustered locations, daily opening and closing times of these buildings, and class start/end times. Clusters of academic buildings within a radius of up to two city blocks are served by a single designated shuttle stop. Shuttle stops are added to support new university locations when these locations lie outside the two-block radius of any pre-existing shuttle stops, but only if per-day ridership necessitates such an addition on an ongoing basis.

There are three types of fixed-route services: Regular loop routes, Express routes, and Limited-Direct routes.

Regular loop routes are designed to connect more than two buildings within a specific area of campus, and to connect to shuttle bus hubs, from which students can transfer to other routes thereby reaching other areas of campus.

Express routes are continuous regular loop routes with only two stops.

Limited/Direct routes supplement the regular looping shuttle service, and are only provided during peak periods. These routes allow students to travel directly between classes from far sides of the campus more quickly because they eliminate hub-transfer.

Shuttle buses are routed to travel the most direct and least congested path among locations, with the following controls:

- No streets and areas restricted by SFMTA
- No streets or areas where residential complaints have been resolved with an agreement to keep buses away.

Bus Stops
There are three types of bus stops:

- Regular Stop
- Hub Stop
- Flag Stop

Regular Stops: Wherever possible, AAU will apply for white passenger loading zones for shuttle bus loading along the frontage of the AAU buildings, pending SFMTA approval. If a zone is desired in an area where no AAU building frontage exists, AAU will seek a letter of concurrence from the owner of the property adjoining the desired curb space. Length of passenger loading zones requested depends on the length and frequency of the vehicles serving the location. Typical lengths are 20- to 25-foot zones for small and medium length buses, and 40- to 103-foot zones for the frequent loading of larger transit buses.

Hub Stops: Bus hubs are shuttle stops shared by all routes in the system, designed to allow students, faculty, and staff to transfer from one route to another in cases where direct service via the continuously looping routes is unavailable. No breaks or layovers are conducted at the designated hub locations. Route schedules are designed without lag times that would allow for idling or layovers at hubs or other stops. Change of drivers does occur at hub locations and takes less than five minutes. Hub stops are located in areas where sufficient passenger loading zones are available to accommodate the need for bus loading. Curb usage is monitored via surveillance cameras by the Transportation Department to ensure that sufficient number of spaces are available. The majority of fixed-route shuttles are scheduled with relief drivers taking over at hub stops to maintain looping service on routes while regular drivers are on break. In cases where ridership demand does not support continuous looping service, shuttles are designated to return to the bus yard during breaks.

Bus layover is required at times. When scheduled breaks do not permit buses to return to the bus yard without excessive carbon footprint, shuttles are directed to use legal parking spaces as available in the vicinity. Parking meter cards are issued to these drivers as needed.

Flag Stops:[1] Flag stops may be established if average ridership per day is less than 20 passengers. In such cases these locations are not assigned stop times, but are indicated along routes as places where drivers stop and board passengers only if someone is waiting at the curb and signals to the bus that they wish to board.

Operating Policy
Diesel buses are equipped with auto-shutoff anti-idling regulators which activate after five minutes. Gasoline buses are not equipped in this way, as the idling of gas buses is not regulated by California's commercial vehicle idling laws. Field Supervisors are tasked with daily surveillance of hub locations to ensure that vehicles are not stacking up, and are not laying over.

Frequency of service is monitored and adjusted prior to the start of each semester, and is subject to adjustment mid-semester as well. Ridership data (on-boarding) is gathered by bus drivers, and routes are continually monitored for hour-by-hour ridership statistics. The following threshold criteria are applied for peak and off-peak-hour frequencies when making adjustments.

During peak hours, shuttle frequencies increase as needed. Frequencies are evaluated and adjusted based on comparison of data about shuttle loads received from drivers' passenger count sheets, student feedback, and driver reports about overloading. If shuttles are filled to maximum capacity, standing room is utilized, and auxiliary shuttles are required. Backup routes are scheduled as limited regular service to supplement during peak periods only.

When average ridership per day on a given loop at a certain off-peak time of day indicates low usage of that loop in per-hour periods of two or more consecutive hours, the loop will be considered for removal if total average daily ridership indicates fewer than 10 passengers on-boarding per-hour during that time period daily.

Changes in building hours necessitate the cancellation or addition of service.

Bus Fleet
The size and quantity of vehicles assigned to each route are monitored and adjusted prior to the start of each semester, and are subject to adjustment throughout each semester as well. When route ridership falls below average threshold minimums, quantity of shuttles on a given route will be decreased, and/or vehicle size will be adjusted, and/or routes may go out of service entirely during the predictable periods of low ridership. Determinations about which of these measures are appropriate are made by factors such as alternative bus availability and passenger data. The following threshold criteria are applied when making adjustments:

When the on-boarding average ridership per day on a given bus indicates low usage of that bus throughout the day, the bus will be considered for removal from the route if total average daily ridership indicates fewer than 40 passengers per day.

Vehicles are replaced or retrofitted to comply with California Air Resource Board low emission requirements. Fleet is maintained as predominantly gas-fueled vehicles. Vehicle replacement policy is to progressively minimize quantity of diesel vehicles in fleet.

Management, Coordination, and Communication
AAU is committed to provide students, faculty, and staff with convenient and easily accessible data on shuttle bus routes and schedules. AAU provides shuttle routes and schedules on the AAU website and

[1] The Planning Department is recommending the elimination of any existing or future Flag Stops as they lead to safety concerns.

includes the data in the kiosks in the lobbies of academic buildings. AAU also provides a mobile app which gives students, faculty, and staff access to GPS data, allowing them to locate shuttles en route.

AAU is committed to ongoing communication, problem solving, and cooperation to alleviate and eliminate complaints and concerns received from the public, adjacent neighbors, and city agencies. In addition, AAU transportation managers participate in SFMTA coordination meetings regarding bus stop policies and programs.

The Campus Safety Communication Center at 180 New Montgomery shares two-way radio access with drivers, dispatchers, supervisors and managers in the Transportation Department. This allows for quick response times in emergency situations.

AAU Shuttle Route Controls

When considering new, expanded, or relocated shuttle routes, routes shall avoid all residential streets where feasible. If it is infeasible to avoid residential streets due to the location of the AAU building, AAU's shuttle routing will take into account factors such as stop locations, schedules, and the minimum size of shuttle vehicle needed to meet demand.

Drivers on established shuttle routes shall generally adhere to those routes. In cases of congestion, shuttle drivers shall avoid diverting to residential streets.

As routes change, AAU will document changes/selection of routes and make the documentation available to the City and the public promptly on the AAU website, annually directly to the Planning Department and SFMTA, and upon request directly to members of the public.

AAU will conduct routine (Fall, Spring and Summer term) analysis of shuttle ridership demand and routes to make necessary adjustments. This analysis shall include goals of reducing routes/buses with low capacity utilization and methods to address any community concerns.

For more efficient routing and perhaps the reduction of shuttles, AAU will identify the shuttle vehicles that can accommodate standing riders and calculate shuttle capacity based on both seated and standing passengers, similar to how public transit capacity is determined. Use this capacity information in the triannual optimization analysis of shuttle ridership demand, routes, and adjustments.

AAU will provide a contact for shuttle bus traffic/routing to the public and for the City. This contact information will be posted clearly on AAU's website. AAU will log, and make available to the City upon request, all complaints and resulting resolutions of complaints related to shuttle routing and/or service.

AAU Shuttle Stop Controls

No use of Muni or regional transit stops by AAU shuttles unless previously approved by SFMTA.

Establish shuttle routes and stops to minimize the risk of double-parking. Inform shuttle drivers not to double-park or otherwise block vehicle travel lanes to load or unload shuttle passengers unless both a) the shuttle driver cannot stop at an AAU white zone or other AAU stop because it is blocked by an unauthorized vehicle; and b) the driver promptly notifies the Department of Parking and Traffic of the unauthorized blockage. When AAU double parking or blocking of vehicle lanes that is not caused by such third-party activity is documented to occur, AAU shall take measures to correct this traffic violation (such as through the provision of a white zone, or relocation of a shuttle stop).

Shuttles shall not idle at stops when not actively loading or unloading passengers, particularly at hub stops.

Similar to route controls, AAU will provide a contact person for AAU shuttle stop concerns from the public, which will be clearly posted on AAU's website, and will keep a log of any complaints received, with resolutions to be made available to the City upon request.

As changes are made or flag stops established, make these changes available to the City.[2]

Provide direct contact for MTA of "two-way radio access" operator, i.e. the AAU Communications Center and Transportation Dispatcher, to resolve any day-to-day concerns from Muni drivers as they arise.

Shuttle Zones Addressed in the Draft EIR
The Draft EIR included analysis of three AAU shuttle stop locations that were not covered in the 23 AAU site diagrams. Diagrams and site characteristic descriptions were included in the Draft EIR. These shuttle stop locations include:

1. 2801 Leavenworth Street (the Cannery) - Jones and Beach Street stop - The proposed project would use an existing 80-foot white zone located near 2700 Jones Street between North Point and Beach Streets as a shuttle stop for the shuttle routes serving this site.
2. 150 Hayes Street stop – The proposed project would use a portion of the existing garage as a shuttle stop for the shuttle routes serving this site.
3. 625 Polk Street stop - The proposed project would use an existing white zone located on Turk Street just west of Polk Street as a shuttle stop for the shuttle routes serving this site.

AAU Shuttle Management Plan

Condition of Approval (Draft EIR Mitigation Measure M-TR-3.1): Shuttle Demand, Service Monitoring, and Capacity Utilization Performance Standard. AAU shall develop, implement, and provide to the City a shuttle management plan to address meeting the peak hour shuttle demand needs of its growth. The shuttle management plan shall address the monitoring, analysis, and potential correction such that unmet shuttle demand would not impact the City's transit and transportation system. Analysis of shuttle bus demand and capacity utilization shall occur at least on an annual basis, or as needed to address shuttle demand. Specifically, analysis and adjustments shall be made on any AAU shuttle routes to reduce shuttle peak hour capacity utilization when the performance standard of 100 percent capacity utilization is regularly observed to be exceeded on any of the AAU shuttle routes. Additionally, the shuttle management plan shall address how shuttle demand at the six project sites[3] will be provided. As additional project sites are added the shuttle management plan would be adjusted to reflect up-to-date shuttle routes, stops and services, as well as a capacity utilization analysis, as needed to, indicate that the proposed demand for shuttle services could be met and avoid potential mode shifts to other travel modes. AAU shall report annually to the City on capacity utilization and alter its schedules and/or capacity, as necessary to avoid regular exceedances of the capacity utilization standard.

Condition of Approval (Draft EIR Improvement Measure I-TR-2): AAU Shuttle Activities Monitoring. As a standard condition of approval, the project sponsor, AAU shall develop and monitor a shuttle bus operation program or group of policies, such as the AAU Shuttle Bus Policy, to ensure shuttle activities do not on a recurring basis substantially impede or interfere with traffic, adjacent land use, transit,

[2] The Planning Department is recommending the elimination of any existing or future Flag Stops as they lead to safety concerns.

[3] The six sites analyzed in the Draft EIR include 2801 Leavenworth Street, 700 Montgomery Street, 625 Polk Street, 150 Hayes Street, 121 Wisconsin, and 2225 Jerrold Street

pedestrians, commercial or passenger loading, and bicycles on the public right-of-way. Such a program shall at a minimum include:

- A dedicated contact person(s) for the shuttle bus operation program
- AAU will document changes to routes and make the documentation available to the City and to the public promptly on the AAU website
- Inclusion of policies or procedures and necessary driver education and penalties to insure that shuttles avoid neighborhood residential streets where feasible
- Inclusion of polices or procedures and necessary driver education and penalties to insure shuttles do not idle at stops when vehicles are not actively loading and unloading
- In the event that a white shuttle bus zone cannot be located or approved in front of an AAU building or an existing stop cannot accommodate additional shuttle traffic, AAU shall work with SFMTA and Planning Department to analyze and propose an alternate location (white zone, nearby property driveway or garage, etc.) to accommodate the AAU peak hour shuttle trips without affecting adjacent vehicle travel lanes
- Reporting and documentation procedures to address transportation-related complaints related to shuttle activity
- Policies requiring the management of the shuttle program to be consistent with SFMTA shuttle policies,[4] including no use of Muni or regional stops without approval of the affected transit agency
- Policies to regularly monitor and adjust (as needed) the AAU shuttle service provided, such that underutilized routes can be adjusted or removed as needed, and heavily used route service can be adjusted to add larger shuttles, provide more frequent service, or other adjustments that result in similar increased capacity

If the Planning Director or SFMTA Director, or his or her designee, have reason to believe that a shuttle activity is creating a recurring conflict (traffic, transit, pedestrian, bicycle, or loading) or safety concern on public property, the Planning Department or SFMTA shall notify AAU in writing. If warranted, the Department(s) may also require AAU to hire a qualified transportation consultant to evaluate the conditions at the site. The consultant shall evaluate the conditions for no less than seven days. The scope of data collection shall be coordinated and reviewed with the Planning Department and/or SFMTA prior to collection. The consultant shall prepare a report summarizing the observations and conditions, and the contribution of the shuttle activity to the concern. The consultant shall provide the Department a recommendation for resolution. If the Department determines that a recurring conflict or safety concern related to shuttle activities exists and could be improved upon, AAU shall have 90 days from the date of the written determination to resolve the matter as recommended or present an alternative solution.

3.4 Bicycle Parking

Condition of Approval: Bicycle Parking. To improve bicycle parking and conditions for bicyclists at future project sites, AAU shall add on- or off-street (or some combination thereof) bicycle parking facilities at project sites. Although additional bicycle parking may not be required under the Planning Code, AAU shall strive to reach the bicycle parking levels consistent with Planning Code and/or based on

[4] https://www.sfmta.com/projects-planning/projects/commuter-shuttle-program-2016-2017

bicycle parking demand[5], whichever is more, for such use categories as for student housing, offices, and postsecondary educational institutions, or consistent with other college campuses for similar types of use (such as classrooms, public areas/showrooms/event facilities, administrative office, student housing, and other student services). AAU can substitute the bicycle parking spaces by providing space or paying for a Bike Share hub in consultation with SFMTA. Bicycle parking should be placed in a safe, easily accessed location and in sufficient amounts to meet demand.

Class I: AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Section 155. Class I bicycle parking should be consistent with San Francisco Planning Department guidance, including being conveniently located and easily accessed from the ground floor (at grade level).

Class II: AAU shall design, locate and configure all bicycle parking spaces in compliance with Planning Code Section 155. Placement of Class II bicycle parking spaces on public sidewalks should be coordinated and reviewed by SFMTA.

3.5 Pedestrian Facilities

Condition of Approval: Pedestrian Traffic. Since pedestrian flows on adjacent sidewalks could be intermittently heavy, an improvement to monitor pedestrian volumes at future sites, particularly student volumes during the peak periods, is recommended. AAU should conduct peak semester, peak weekday, 7:30 a.m. to 7:30 p.m. observation/count of shuttle passengers waiting for shuttles to determine if adjacent pedestrian facilities are being blocked at certain times of the day. If pedestrian traffic is observed to be blocked during any of these periods, then AAU should implement measures such as having students wait inside for shuttles (providing real-time information on shuttle arrivals, similar to NextBus), reminding students not to block adjacent sidewalks, providing a gathering area inside the building, and/or other measures to reduce this activity. Other measures could include wider sidewalks, pedestrian bulb outs, signalized pedestrian crossing, and adding benches to encourage passengers to wait closer to the building rather than at the curb. Measures outside the building would be subject to San Francisco Department of Public Works review and approval.

Condition of Approval: Curb Cut Removal. AAU should remove unnecessary curb cuts at existing and future sites, as determined by the Planning Department and SFMTA. Curb cut removal also improves pedestrian conditions, and potentially increases the amount of on-street parking and/or commercial parking adjacent to future AAU facilities.

3.6 Commercial and Construction Loading

Although AAU is not a centralized campus, most deliveries, except food and some program or residential deliveries, are delivered to the centralized receiving area at the 79 New Montgomery main administrative building, and then distributed to the other buildings owned or operated by AAU. The 79 New Montgomery building has a loading dock along Jessie Street between Second Street and New Montgomery Street, and most deliveries occur at the loading dock or at other on-street loading zones (commercial or passenger) along New Montgomery Street. Based on information provided by AAU, there are approximately eight to nine daily deliveries to the 79 Montgomery Street location. Mailroom deliveries to AAU facilities occur twice daily, goods deliveries (e.g., paper, ink, computers) four to five

[5] Bicycle Parking Demand =Daily bicycle trips/2/turnover rate

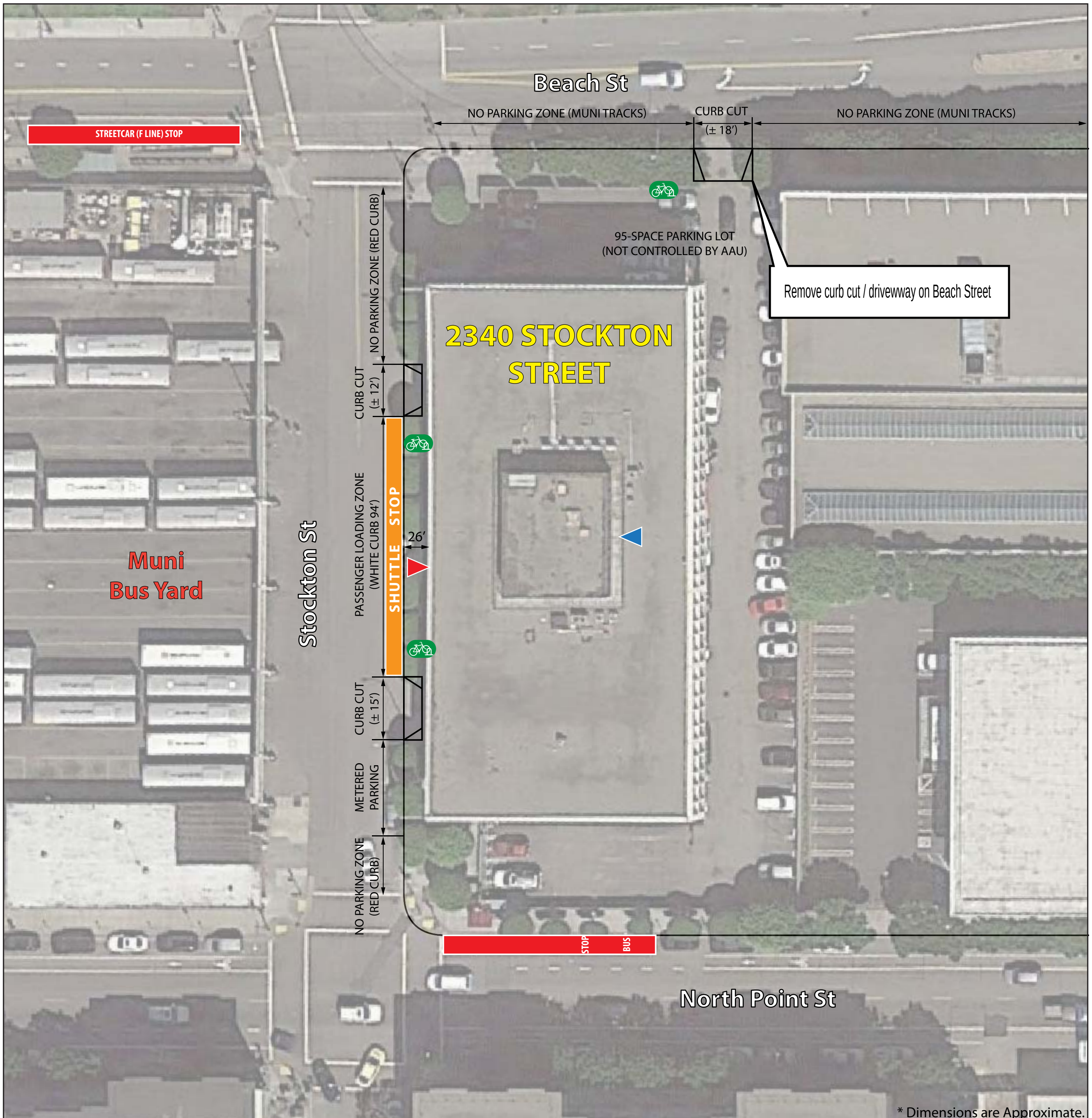
times per day, and bulk printed materials once per semester. Food service deliveries are made to multiple existing AAU facilities, such as 620 Sutter Street and 1055 Pine Street, twice weekly.

Condition of Approval (Draft EIR Improvement Measure I-TR-5): Commercial Loading. AAU would further improve conditions in study areas with high existing commercial loading demand, where AAU would monitor and efficiently manage their commercial loading activities over time and as needed, adjusting times of deliveries or applying for additional on-street commercial loading spaces from SFMTA. Since AAU has a centralized delivery system, commercial deliveries could be combined and managed to occur when higher amounts of on-street commercial loading spaces are available. This would improve potential AAU commercial loading activities in the study areas.

Condition of Approval: Construction Loading. Any construction traffic occurring between 7:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow. Limiting truck movements to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by SFMTA) would improve general traffic flow on adjacent streets during the AM and PM peak periods.

4. Recommended Conditions of Approval

The following figures include transportation-related recommended conditions of approval for AAU's institutional and residential existing sites. The AAU site figures provide recommendations for shuttle stop locations and bus lines, commercial loading passenger loading zones, bicycle parking location, and building pedestrian access. These recommendations will ensure safe and efficient access for all modes with a particular focus on promoting pedestrian, bicycle, and transit access to all AAU facilities and adjacent mix of uses, thereby reducing impacts on the transportation network.



SHUTTLE BUS SERVICE (PM Headway)

D (30 min), E (30 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	32
Parking Demand:	9	
Recommended:	0	0

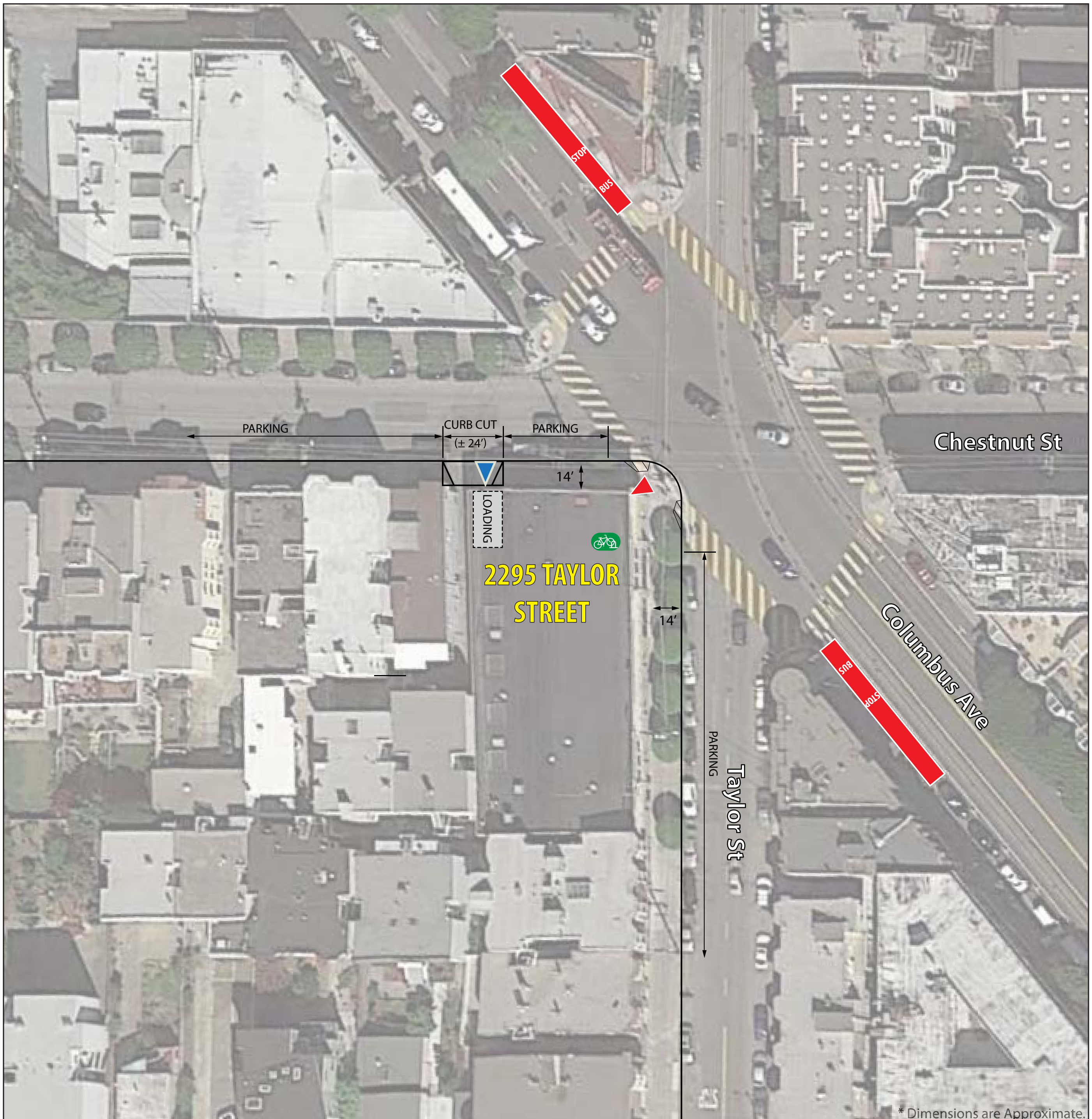
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Remove curb cut/driveway on Beach Street and use curb cuts on Stockton Street for accessing leased parking lot

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 1 - ES-1: 2340 STOCKTON ST (INSTITUTIONAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE

Shuttle Service Discontinued as of April 18, 2016

Nearest Stop at Beach St / Jones St

AAU Bicycle Parking Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	14
Parking Demand:	4	
Recommended:	0	0

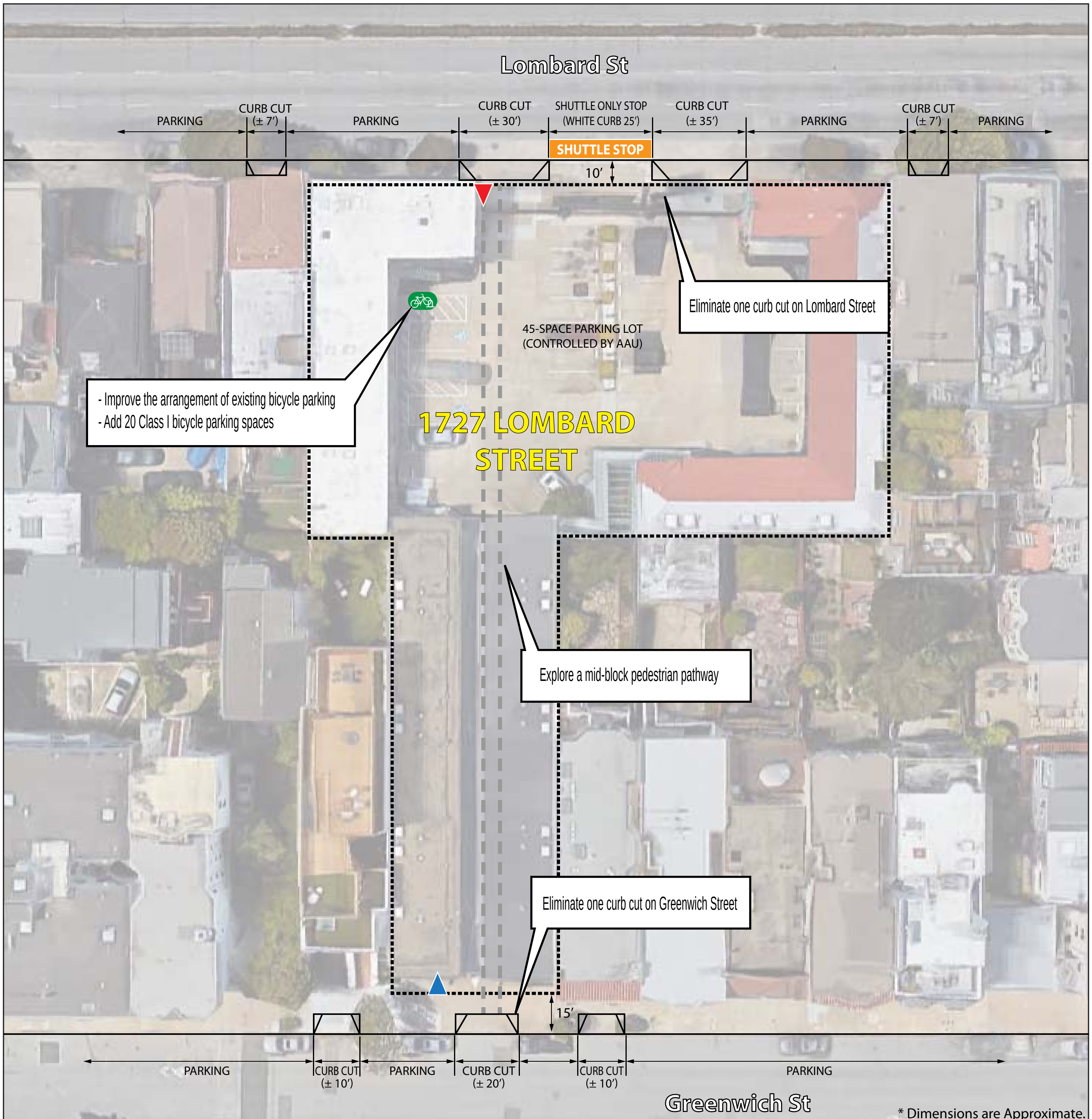
RECOMMENDED CONDITIONS OF APPROVAL

None

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 2 - ES-2: 2295 TAYLOR ST (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

M (20 min)

AAU Bicycle Parking Location
Shuttle Stop Location
Primary Pedestrian Access
Secondary Pedestrian Access

N
Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	20	3
Existing Supply:	0	16
Parking Demand:	6	
Recommended:	20	0

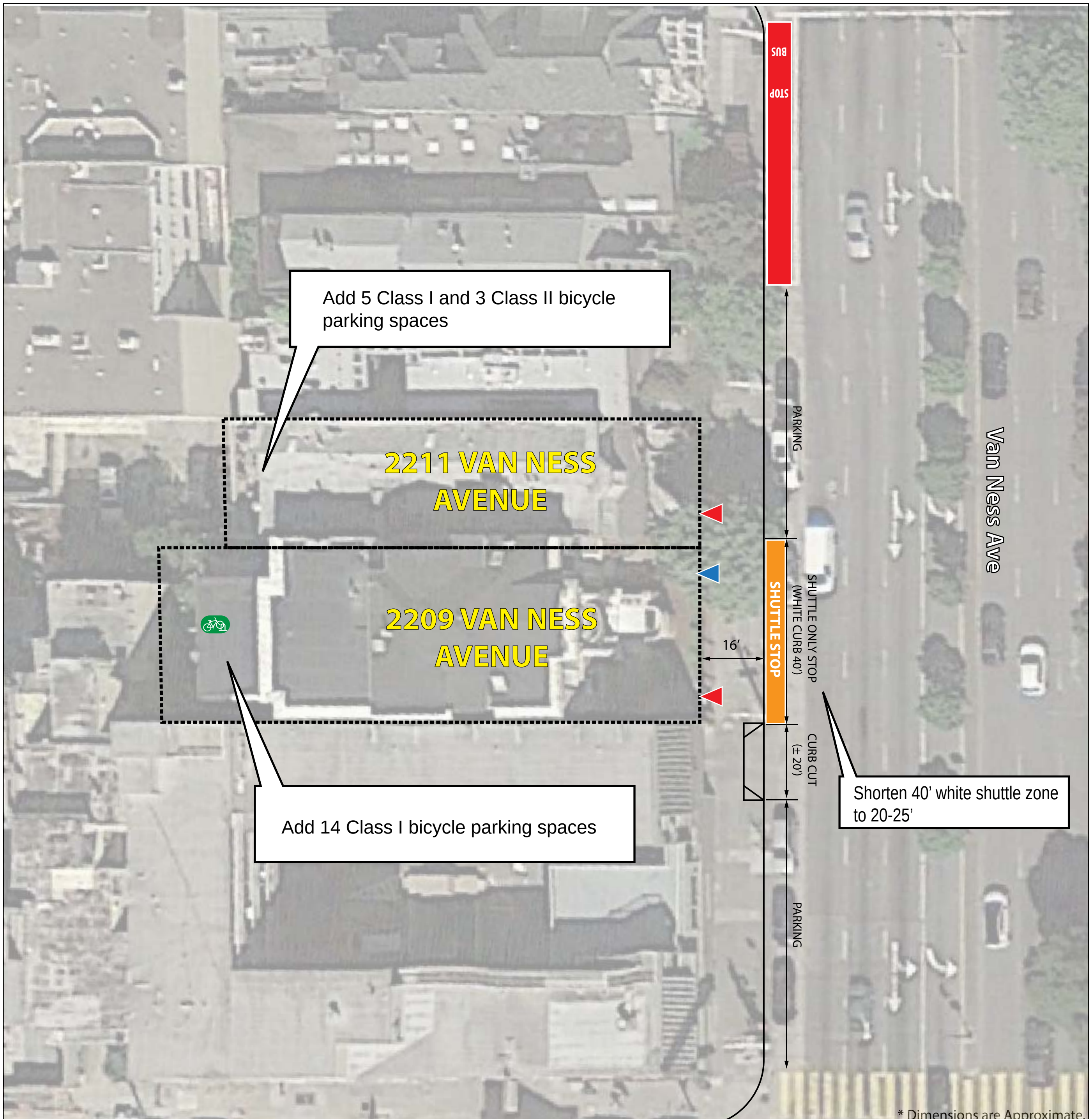
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Eliminate the existing curb cuts (one on Lombard St and one on Greenwich St) and replace with 2 parking spaces
TR-3 Explore a mid-block location to replace the driveway extending through the site to Greenwich St
TR-4 Improve the arrangement of bicycle parking and add 20 Class I bicycle parking spaces

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 3 - ES-3: 1727 LOMBARD ST (RESIDENTIAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

M (20 min)

AAU Bicycle Parking Location
Shuttle Stop Location
Primary Pedestrian Access
Secondary Pedestrian Access

N
Not to Scale

BICYCLE PARKING (2211 VN/2209 VN)

	Class I	Class II
Code Required:	5 / 14	3 / 3
Existing Supply:	0 / 0	0 / 9
Parking Demand:	3 / 3	
Recommended:	5 / 14	3 / 0

RECOMMENDED CONDITIONS OF APPROVAL

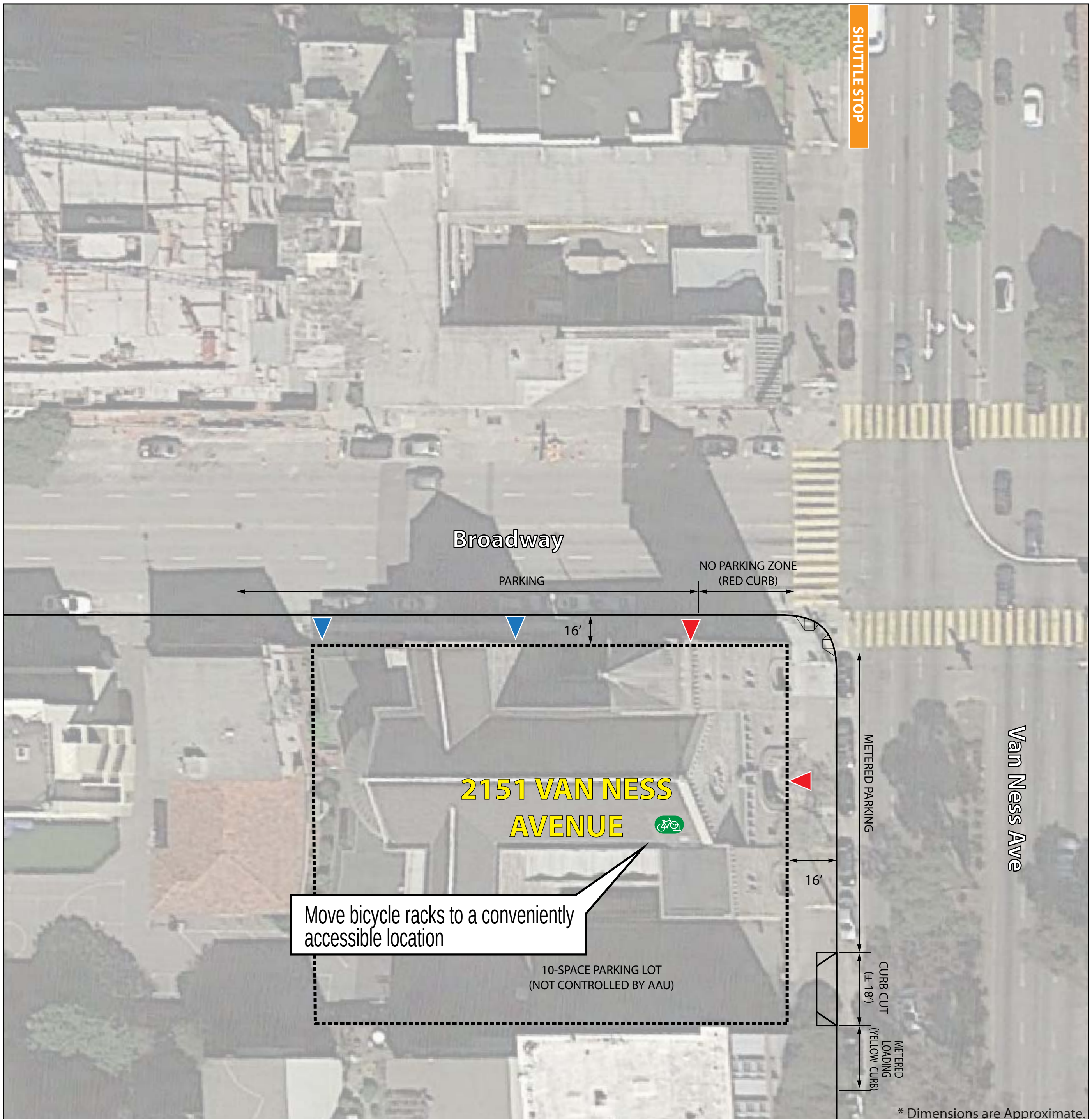
2211 Van Ness Avenue
TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Add 5 Class I bicycle parking spaces
TR-3 Add 3 Class II bicycle parking spaces

2209 Van Ness Avenue
TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Shorten 40' white shuttle zone to 20-25'
TR-3 Add 14 Class I bicycle parking spaces

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 4 - ES-4 & 5: 2211 & 2209 VAN NESS AVE (RESIDENTIAL SITES) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

M (20 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	TBD	TBD
Existing Supply:	0	8
Parking Demand:	1	
Recommended:	0	0

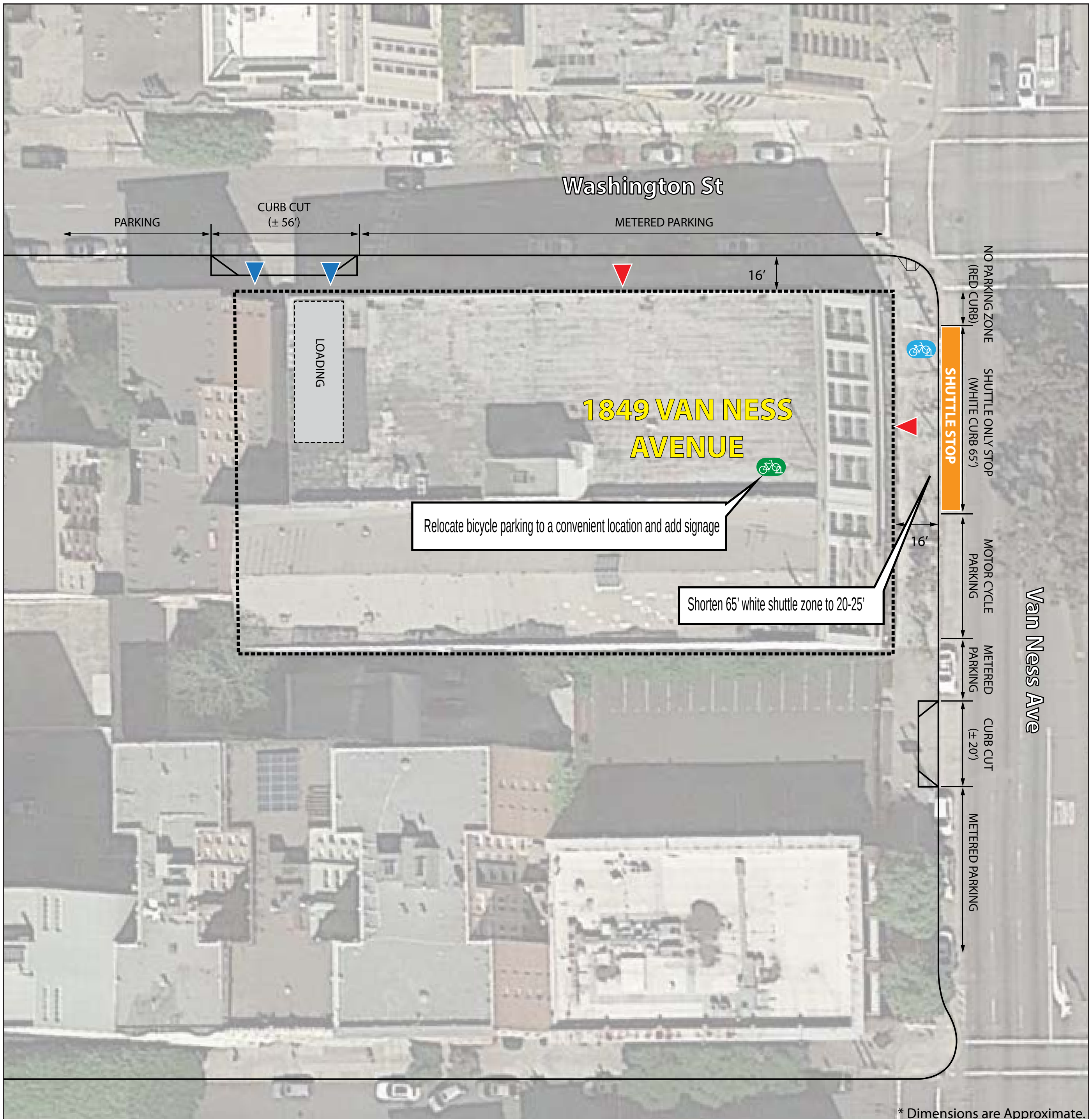
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Move bicycle racks to a conveniently accessible location

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 5 - ES-6: 2151 VAN NESS AVE (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

M (20 min)

AAU Bicycle Parking Location

Public Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	32
Parking Demand:	21	
Recommended:	0	0

RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity

TR-2 Shorten 65' white shuttle zone to 20-25' and return to public parking or commercial loading spaces

TR-3 Relocate bicycle parking to a more convenient location and add signage

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 6 - ES-8: 1849 VAN NESS AVE (INSTITUTIONAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL

SHUTTLE BUS SERVICE (PM Headway)

M (20 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	6
Parking Demand:	3	
Recommended:	0	0

RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Coordinate with SFMTA to create a white zone
TR-3 Rearrange bicycle parking to allow for sufficient clearance of parked bicycles

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 7 - ES-9: 1916 OCTAVIA ST (RESIDENTIAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL

SHUTTLE BUS SERVICE (PM Headway)
D (30 min), E (30 min), Sutter Express (25 min)
Nearest Stop at 620 Sutter Street

▲ Primary Pedestrian Access

N
Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	0
Parking Demand:	0	
Recommended:	0	0

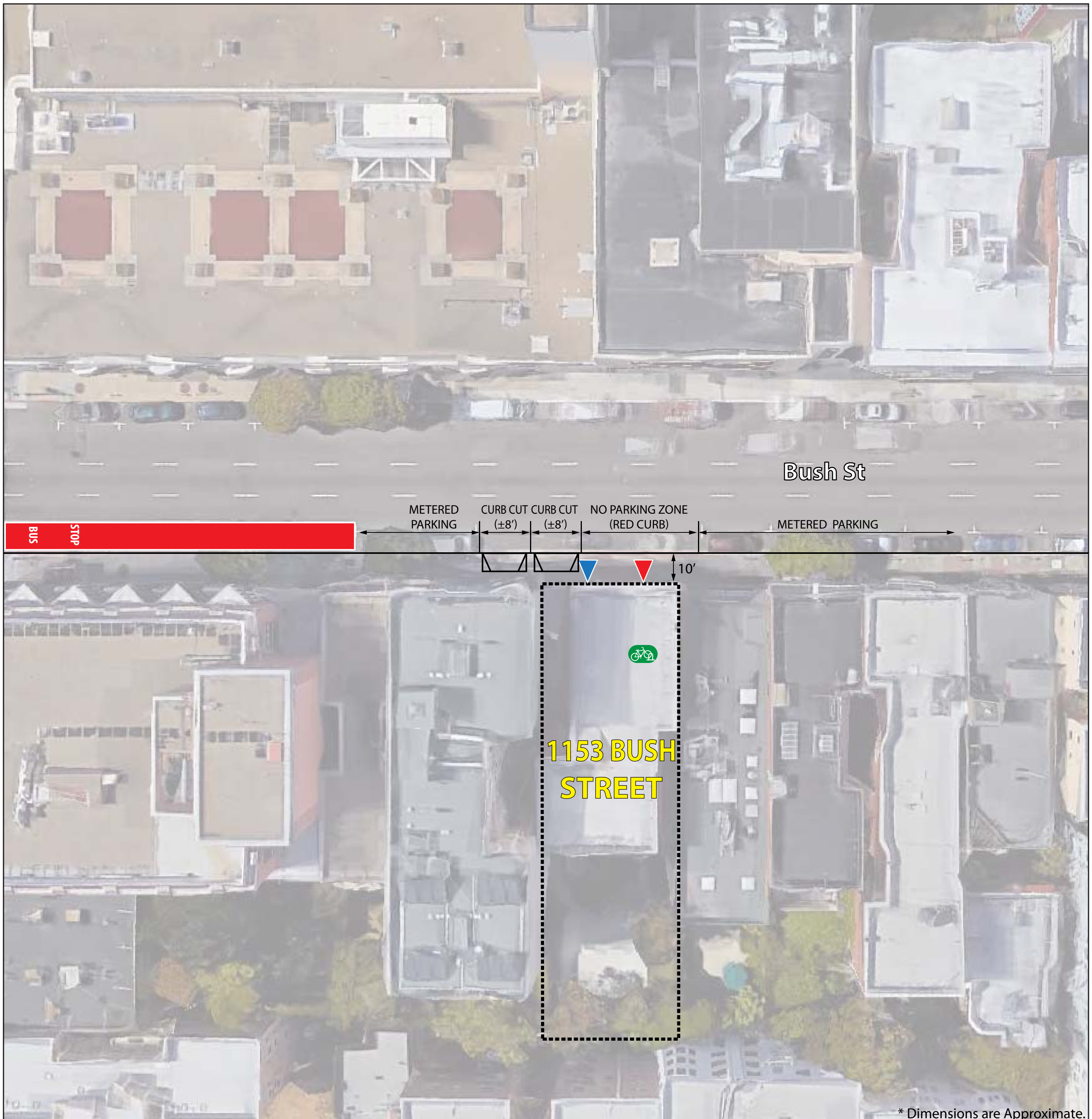
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Remove unncessary curb cuts along O'Farrell Street and Van Ness Avenue

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 8 - ES-10: 950 VAN NESS AVE (VEHICLE STORAGE)
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)
D, E, G (30 min); H, I, M (20 min), Sutter Express (25 min)
Nearest Stop at 860 Sutter Street

AAU Bicycle Parking Location
Primary Pedestrian Access
Secondary Pedestrian Access
N
Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	8
Parking Demand:	3	
Recommended:	0	0

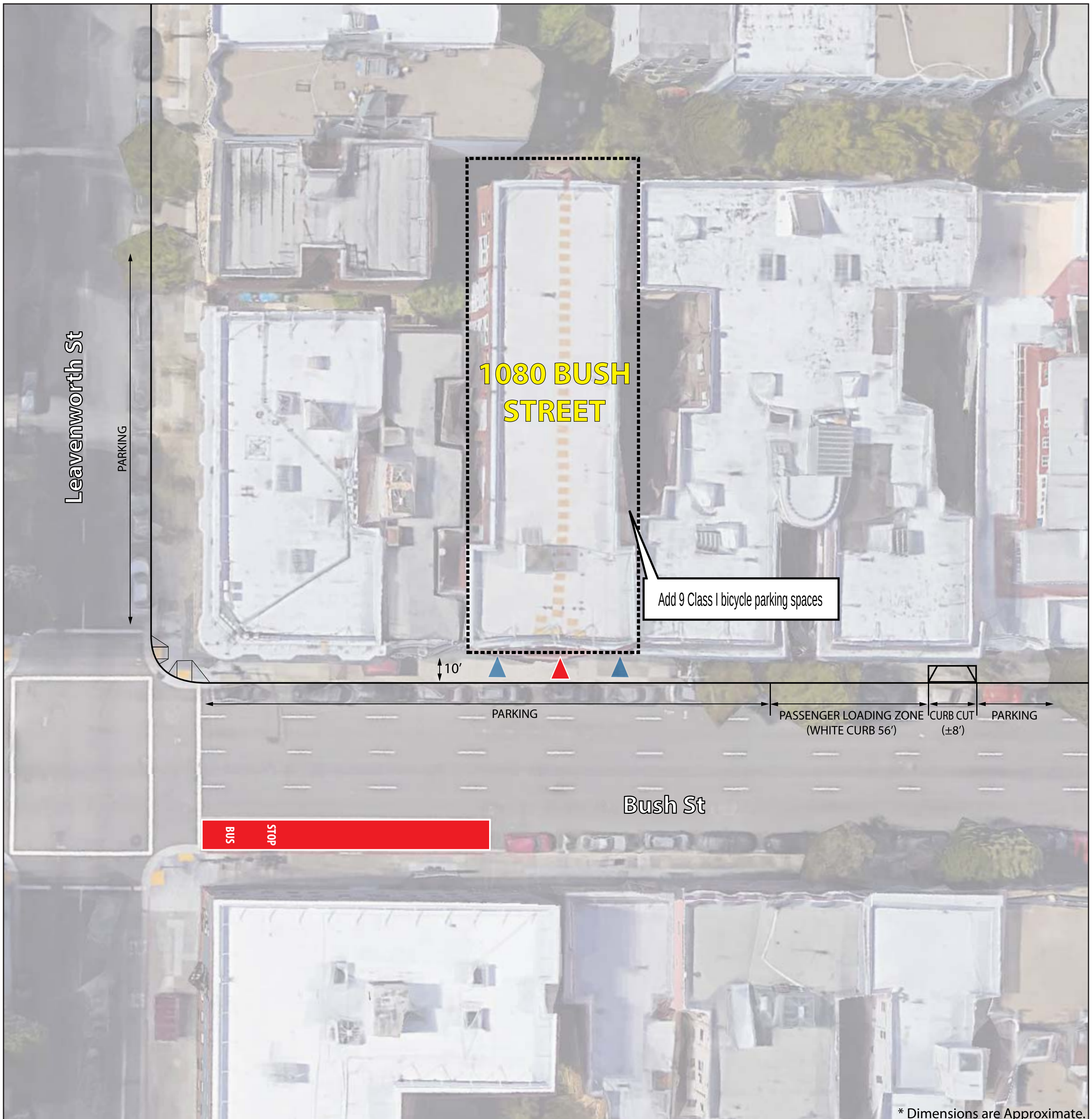
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 9 - ES-11: 1153 BUSH ST
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)
D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)
Nearest Stop at 860 Sutter Street

AAU Bicycle Parking Location
Shuttle Stop Location
Primary Pedestrian Access
Secondary Pedestrian Access

N
Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	0
Parking Demand:	9	
Recommended:	9	0

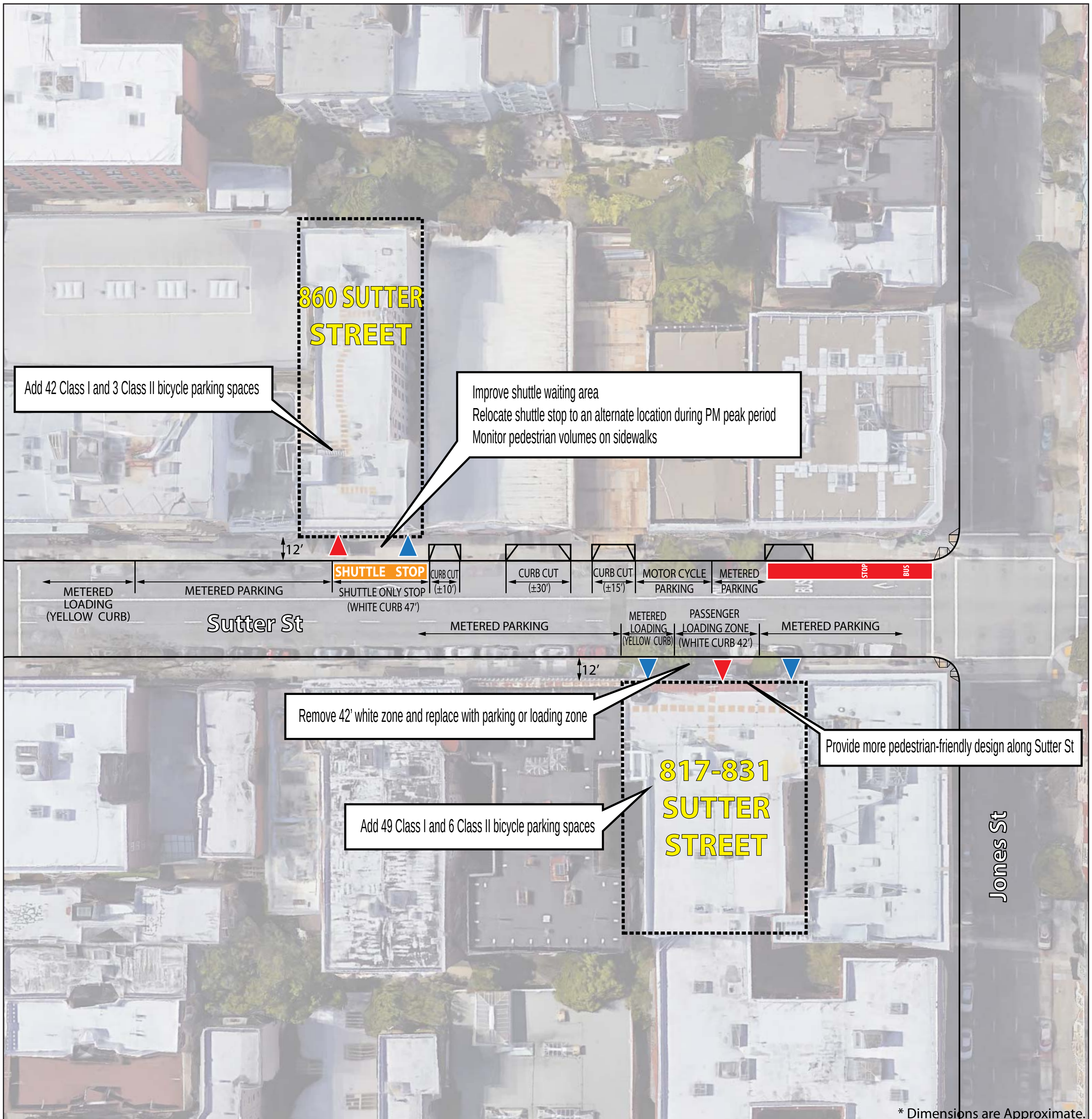
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Add 9 Class I bicycle parking spaces, unless work with SFMTA to provide 9 Class II bicycle parking spaces along Bush Street

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 10 - ES-12: 1080 BUSH ST (RESIDENTIAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

AAU Bicycle Parking Location
Shuttle Stop Location
Primary Pedestrian Access
Secondary Pedestrian Access

N
Not to Scale

BICYCLE PARKING (860 / 817 Sutter)

	Class I	Class II
Code Required:	42 / 49	3 / 6
Existing Supply:	0 / 0	0 / 0
Parking Demand:	12 / 14	
Recommended:	42 / 49	3 / 6

RECOMMENDED CONDITIONS OF APPROVAL

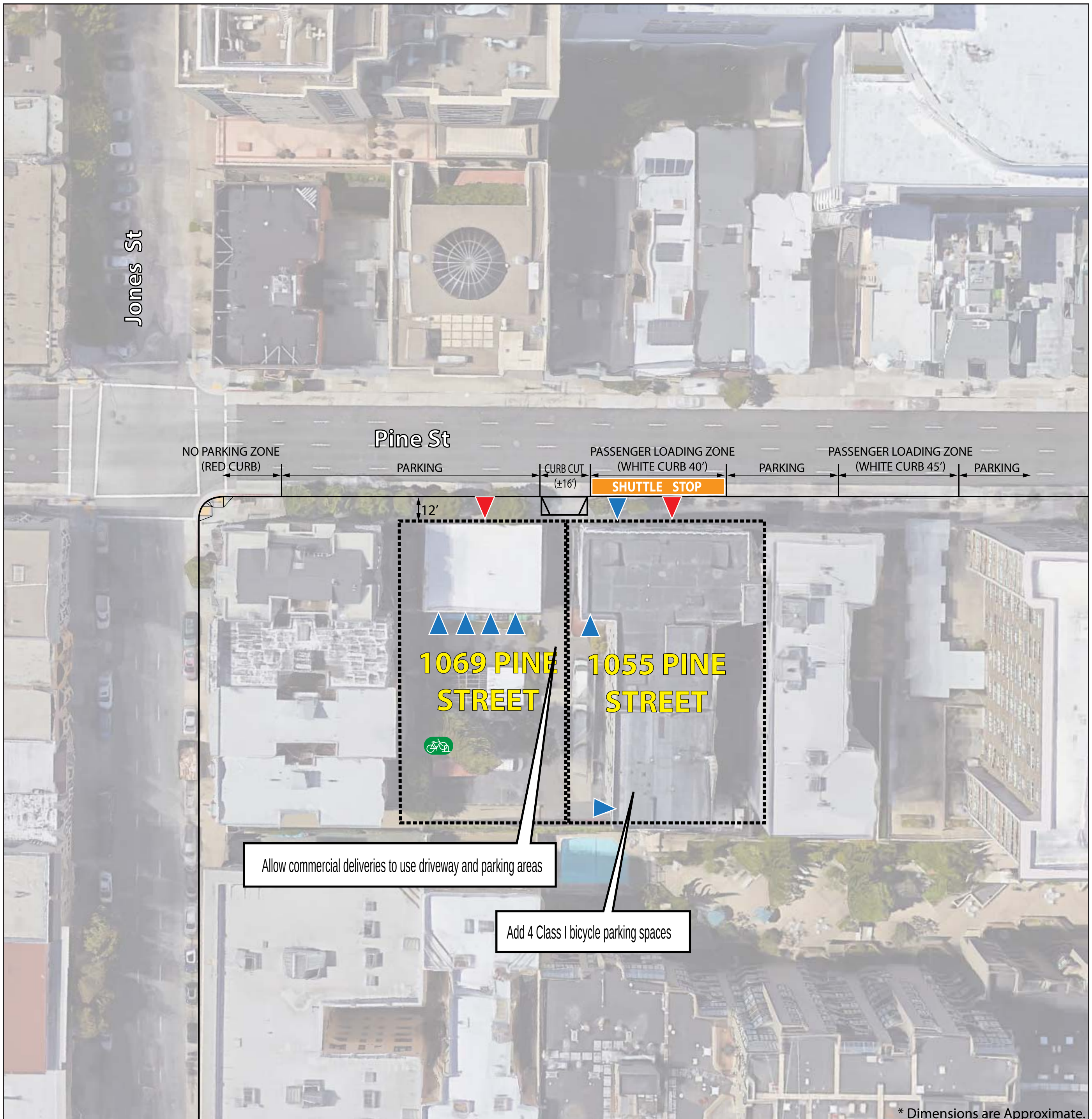
860 Sutter Street
- TR-1 Assess, adjust and monitor shuttle bus capacity
- TR-2 Improve shuttle waiting area and monitor pedestrian volumes
- TR-3 Relocate shuttle stop to 491 Post St or an alternate location during PM peak hour
- TR-4 Monitor shuttle frequency to avoid double parking
- TR-5 Add 42 Class I bicycle parking spaces
- TR-6 Add 3 Class II bicycle parking spaces

817-831 Sutter Street
- TR-1 Remove 42' white zone and replace with parking or loading zone
- TR-2 Provide more pedestrian-friendly design along Sutter Street
- TR-3 Add 49 Class I bicycle parking spaces
- TR-4 Add 6 Class II bicycle parking spaces

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 11 - ES-13 & 14: 860 & 817-831 SUTTER ST (RESIDENTIAL SITES) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

Sutter Express (25 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING (1069 / 1055 Pine)

	Class I	Class II
Code Required:	0 / 0	0 / 0
Existing Supply:	0 / 0	0 / 8
Parking Demand:	0 / 12	
Recommended:	0 / 4	0 / 0

RECOMMENDED CONDITIONS OF APPROVAL

1069 Pine Street

TR-1 Allow commercial deliveries to use the driveway and parking areas

1055 Pine Street

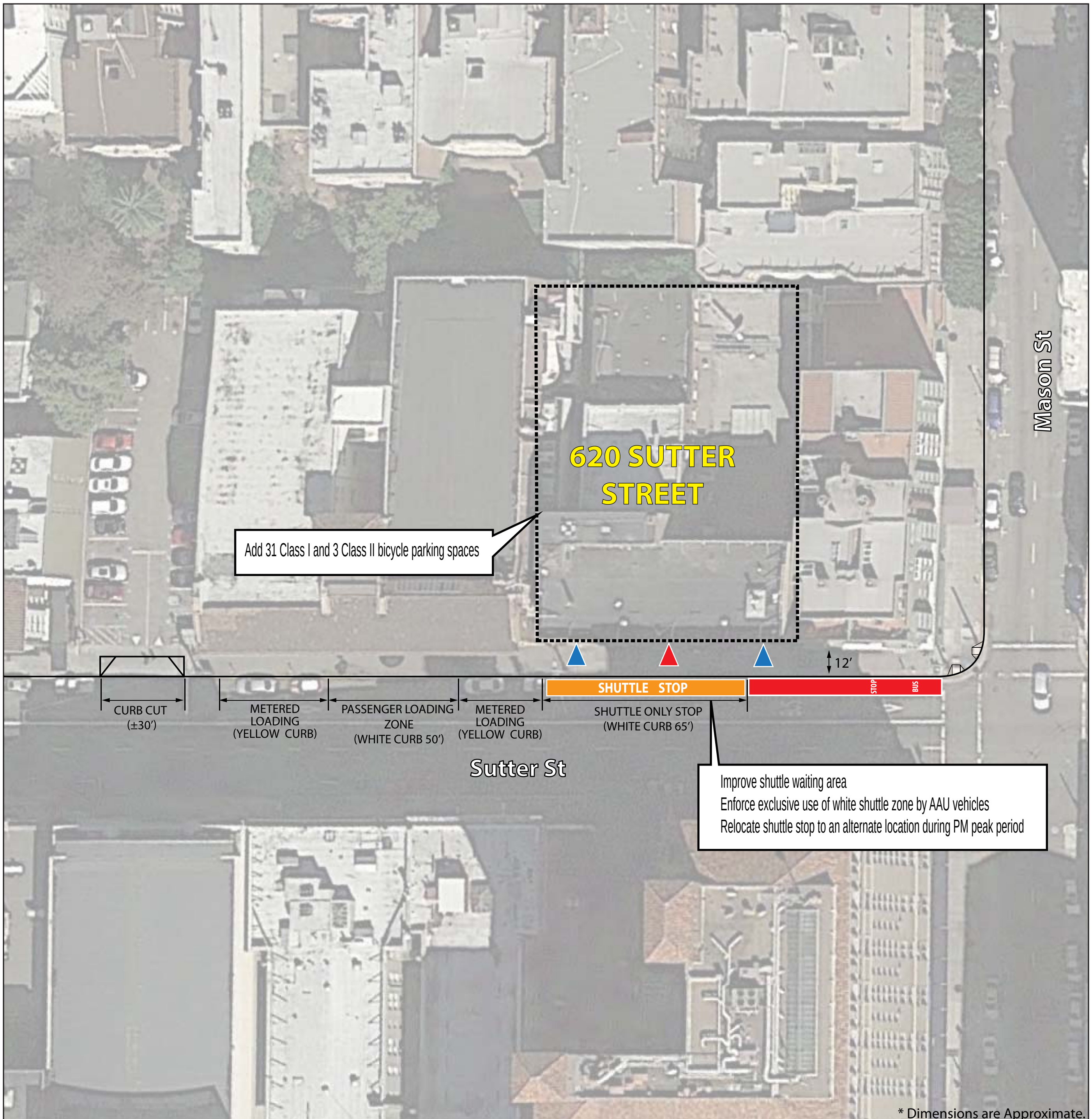
TR-1 Add 4 Class I bicycle parking spaces, unless work with SFMTA to provide 4 Class II bicycle parking spaces along Pine Street

TR-2 Allow commercial deliveries to use the driveway and parking areas

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 12 - ES-16 & 17: 1069 (RECREATIONAL SITE) & 1055 PINE ST (RESIDENTIAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	31	3
Existing Supply:	0	0
Parking Demand:	9	
Recommended:	31	3

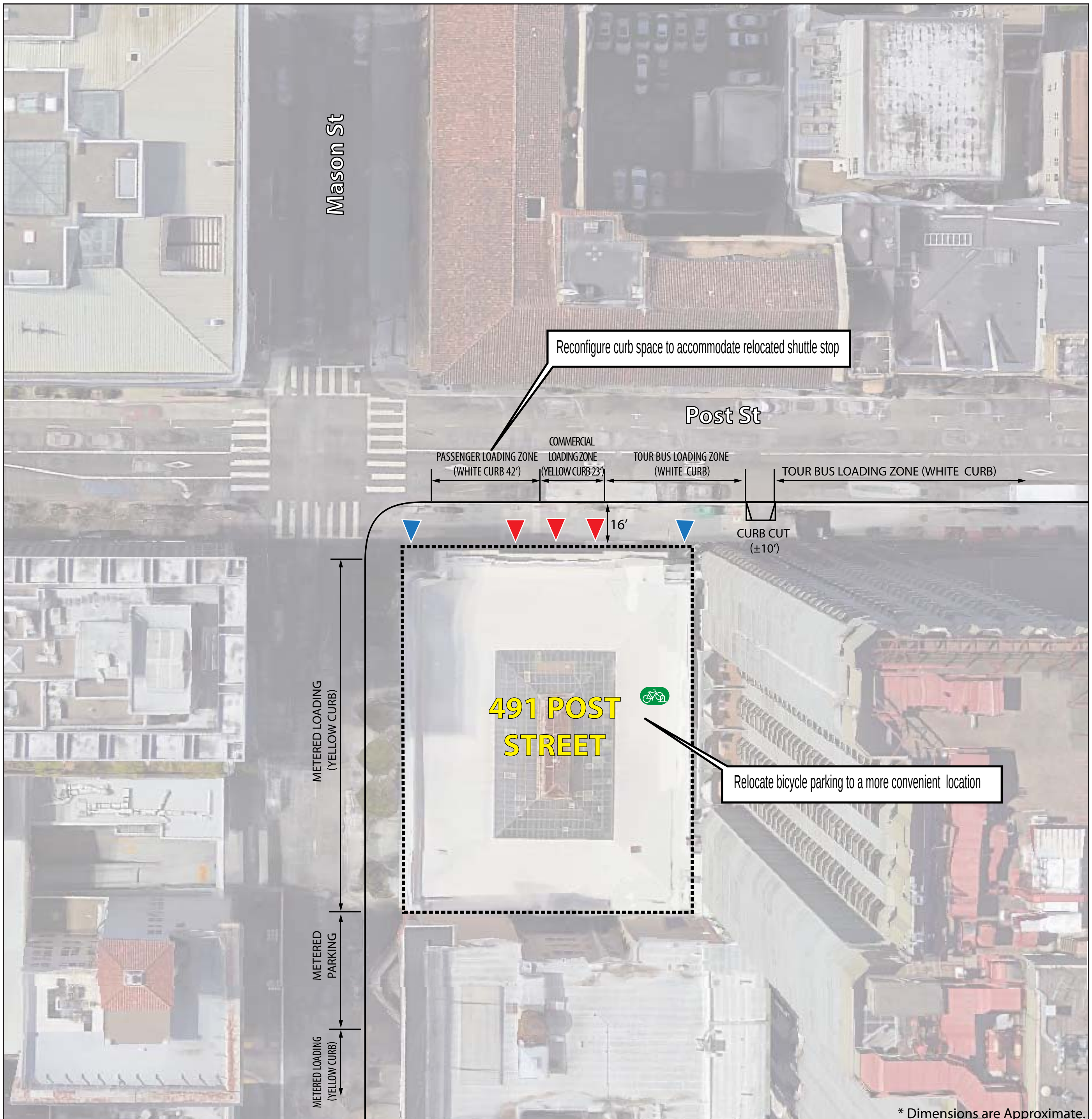
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Monitor on-time performance of shuttles to avoid double parking
TR-3 Relocate shuttle stop to 491 Post St or an alternate location during PM peak period
TR-4 Enforce exclusive use of white shuttle zone by AAU vehicles
TR-5 Improve shuttle waiting area
TR-6 Add 31 Class I bicycle parking spaces
TR-7 Add 3 Class II bicycle parking spaces

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 13 - ES-20: 620 SUTTER ST (RESIDENTIAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

D, E, G (30 min); H, I, M (20 min); Sutter Express (25 min)

Nearest Stop at 620 Sutter Street

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	20
Parking Demand:	7	
Recommended:	0	0

RECOMMENDED CONDITIONS OF APPROVAL

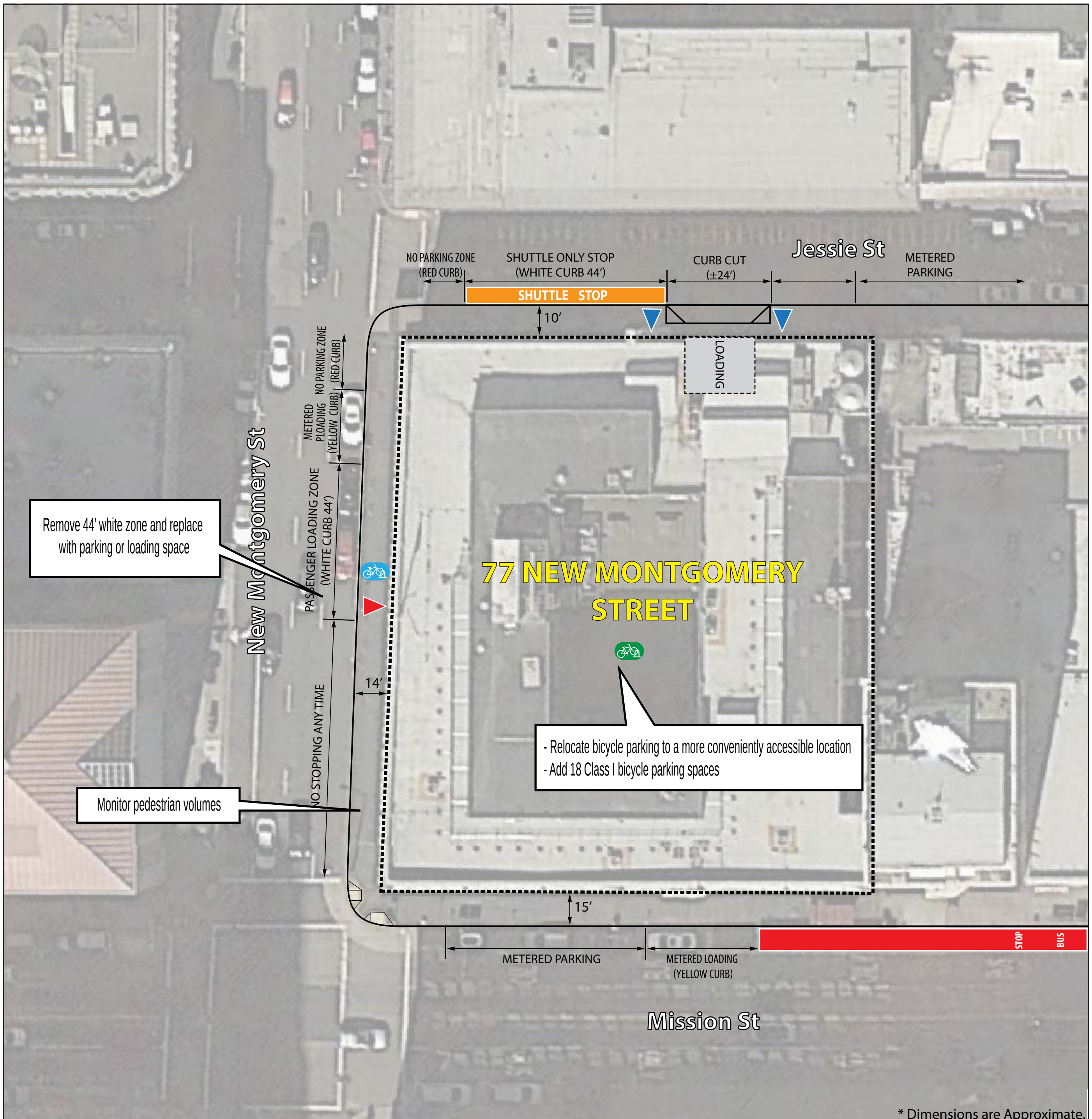
TR-1 Relocate bicycle parking spaces to a more convenient location and add signage

TR-2 Reconfigure curb space to accommodate relocated shuttle stop location

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 14 - ES-23: 491 POST ST (INSTITUTIONAL SITE)
RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

G (30 min), Hayes Express (30 min)

AAU Bicycle Parking Location

Public Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	16
Parking Demand:	34	
Recommended:	18	0

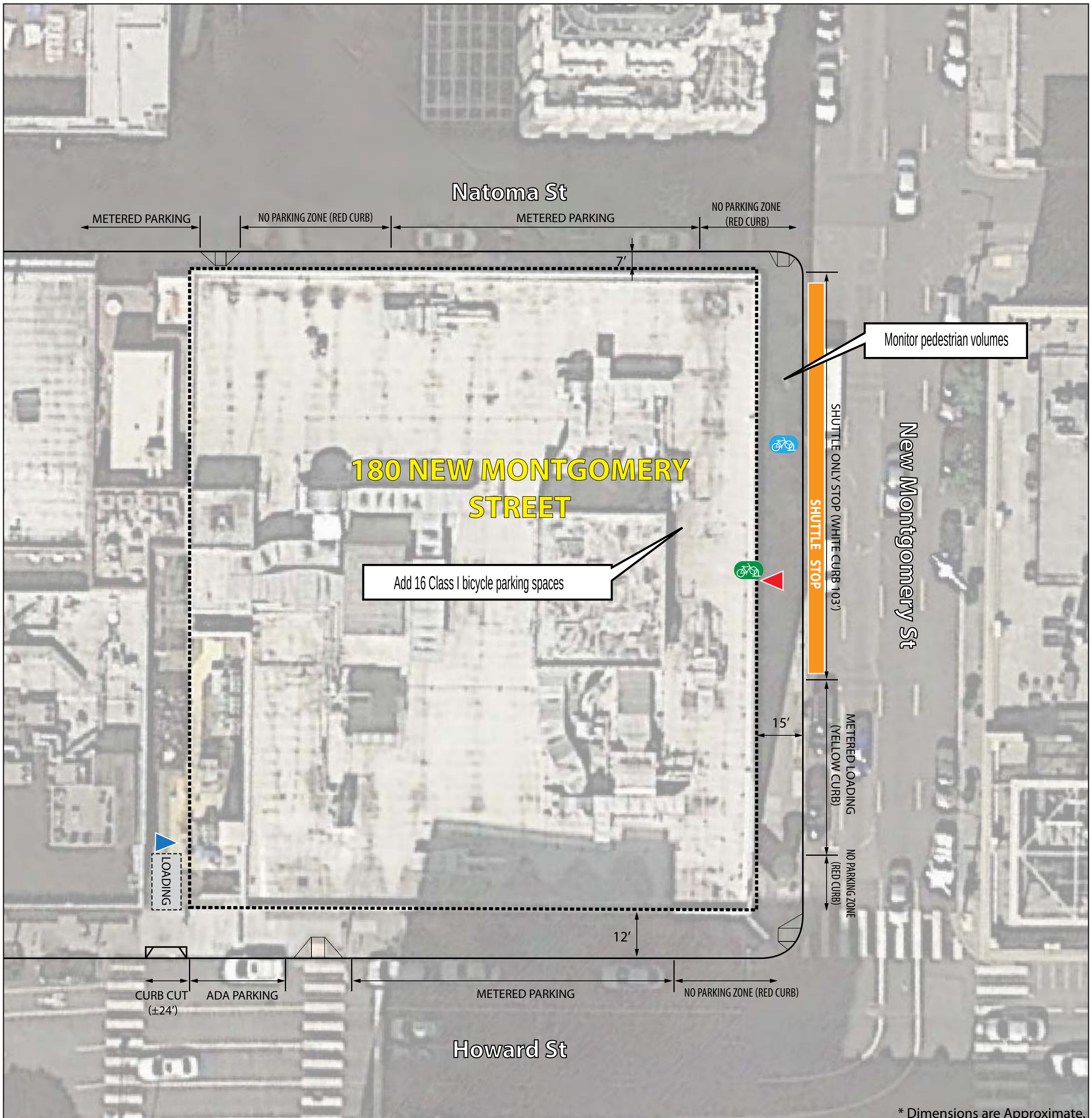
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Remove 44' white zone and replace with parking or commercial loading zone
TR-3 Monitor pedestrian volumes on sidewalks
TR-4 Relocate bicycle parking to a more convenient location and add signage
TR-5 Add 18 Class I bicycle parking spaces, unless work with SFMTA to provide 18 Class II bicycle parking spaces along New Montgomery Street

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 15 - ES-27: 77 NEW MONTGOMERY ST (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

D, E, G (30 min); H, I (20 min)

AAU Bicycle Parking Location

Public Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	28
Parking Demand:	44	
Recommended:	16	0

RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity

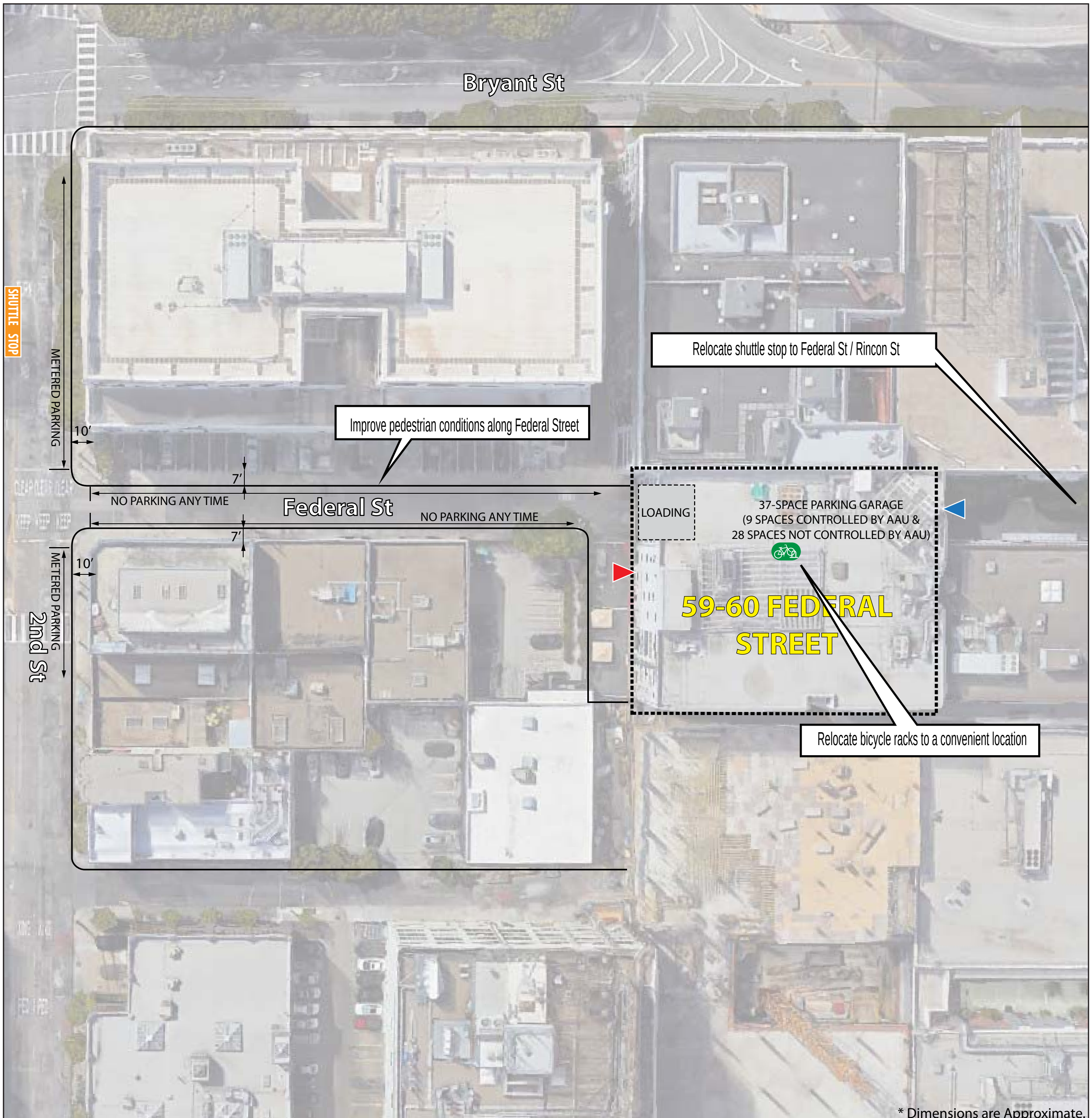
TR-2 Monitor pedestrian volumes on sidewalks

TR-3 Add 16 Class I bicycle parking spaces, unless work with SFMTA to provide 18 Class II bicycle parking spaces along New Montgomery Street

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 16 - ES-28: 180 NEW MONTGOMERY ST (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

G (30 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	36
Parking Demand:	19	
Recommended:	0	0

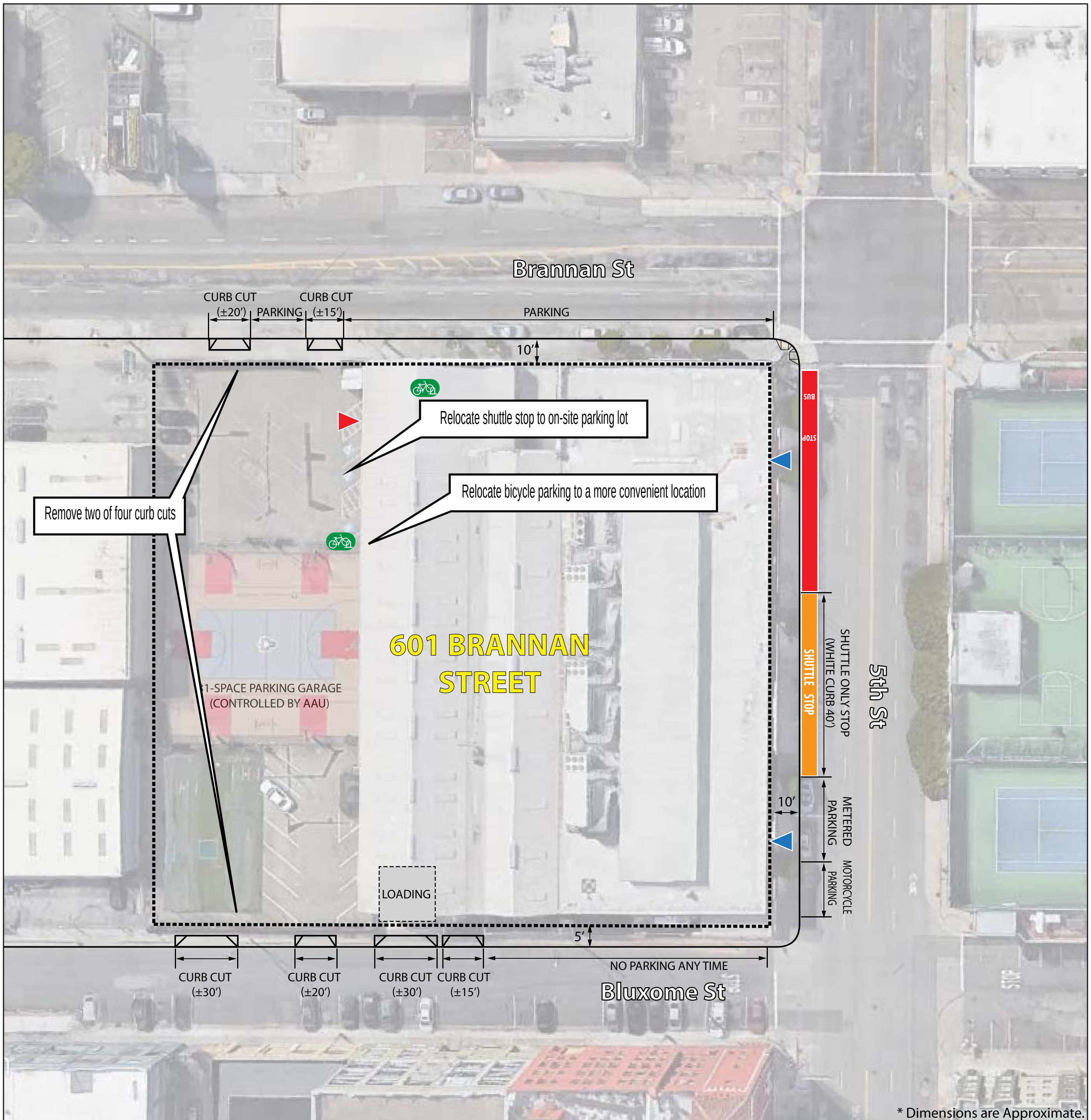
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Relocate shuttle stop to the intersection of Federal St / Rincon St
TR-3 Improve pedestrian conditions along Federal Street
TR-4 Relocate bicycle parking to a more convenient location and add signage

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 17 - ES-30: 58-60 FEDERAL ST (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

G (30 min); H, I (20 min)

AAU Bicycle Parking Location
Shuttle Stop Location
Primary Pedestrian Access
Secondary Pedestrian Access

N
Not to Scale

BICYCLE PARKING

	Class I	Class II
Code Required:	0	0
Existing Supply:	0	60
Parking Demand:	15	
Recommended:	0	0

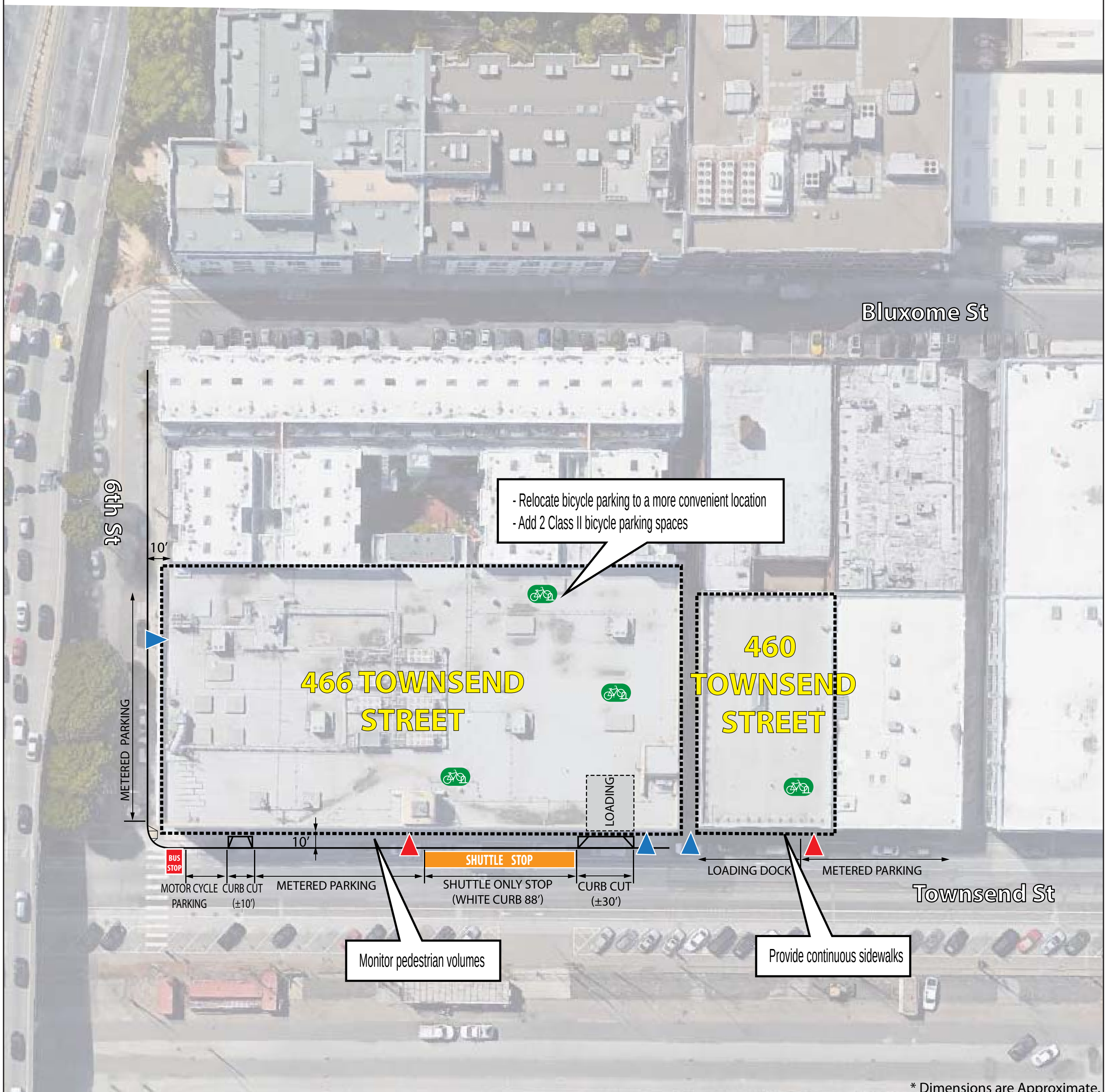
RECOMMENDED CONDITIONS OF APPROVAL

TR-1 Assess, adjust and monitor shuttle bus capacity
TR-2 Remove two of four driveway curb cuts
TR-3 Relocate bicycle parking to a more convenient location and add signage
TR-4 Move shuttle stop to on-site parking lot

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 18 - ES-31: 601 BRANNAN ST (INSTITUTIONAL SITE) RECOMMENDED CONDITIONS OF APPROVAL



SHUTTLE BUS SERVICE (PM Headway)

G (30 min); H, I (20 min)

AAU Bicycle Parking Location

Shuttle Stop Location

Primary Pedestrian Access

Secondary Pedestrian Access

N

Not to Scale

BICYCLE PARKING (460 / 466 Townsend)

	Class I	Class II
Code Required:	0 / 0	0 / 0
Existing Supply:	0 / 0	5 / 20
Parking Demand:	4 / 22	
Recommended:	0 / 2	0 / 0

RECOMMENDED CONDITIONS OF APPROVAL

460 Townsend Street

TR-1 Assess, adjust and monitor shuttle bus capacity

TR-2 Provide a continuous sidewalk along the frontage of 460 Townsend Street

466 Townsend Street

TR-1 Assess, adjust and monitor shuttle bus capacity

TR-2 Monitor pedestrian volumes on sidewalks

TR-3 Relocate bicycle parking to a more convenient location

TR-4 Add 2 Class I bicycle parking spaces, unless work with SFMTA to provide 2 Class II bicycle parking spaces along Townsend Street

ACADEMY OF ART UNIVERSITY ESTM

SOURCE: CHS Consulting Group, 2016.

FIGURE 19 - ES-33 & 34: 460 & 466 TOWNSEND ST (INSTITUTIONAL SITES) RECOMMENDED CONDITIONS OF APPROVAL

APPENDIX HR:

Historic Resource Evaluations

This page intentionally left blank.

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
2340 Stockton Street (ES-1) 1986	0018004	1970	Category B (Properties Requiring Further Consultation and Review)	Category C (Properties Determined Not to be Historical Resources)	N/A	Primary Elevation: Installation of blade signs in 1987 (BPA #8701534)	Primary Elevation: Installation of clearance bars at parking entrances, 2015 Secondary Elevations: Installation of vents in original sliding window openings on east elevation	No	N/A	Building Permit reviewed per Planning Code
2295 Taylor Street (ES-2) 2003	0066001	1919	Category A (Known Historical Resource)	Category C (Properties Determined Not to be Historical Resources)	N/A	Primary Elevation: Metal plates installed over painted AAU signage, (BPA #201301248668) Sprinkler improvements (BPA #201008189002) Life safety improvements (#201005051799)	Primary Elevation: Installation of replica lighting, 2005 Installation of metal security gates at southernmost, ground-level doors, 2007	No	N/A	Building Permit reviewed per Planning Code
1727 Lombard Street (ES-3) 2007	0506036	1953/1960	Category B (Properties Requiring Further Consultation and Review)	Category A (Known Historical Resource)	N/A	Security gates and garage doors added, 2008 (BPA #200803197518)		No	N/A	None (all work appears to be permitted)
2211 Van Ness Avenue (ES-4) 2005	0570005	1876	Category A (Known Historical Resource)	Category C (Properties Determined Not to be Historical Resources)	N/A	Re-roofing (BPA #201202234678) Signage (BPA #200804028568) Ground-floor remodeling (BPA #200702264852)	Primary Elevation: Installation of security fence along brick wall, post-2005	No	N/A	Building Permit reviewed per Planning Code
2209 Van Ness Avenue (ES-5) 1998	0570029	1901	Category A (Known Historical Resource; NRHP listed)	Category A (Known Historical Resource)	N/A	Primary Elevation: Installation of ADA lift and removal of concrete steps (BPA #9802790 and #990915) Sign installation (BPA #200804028570); Sign removal (BPA #201301248666)	Addition of security bars and metal fence, ground story, post-1998	No	N/A	Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
2151 Van Ness Avenue (ES-6) 2005	0575015	1896-1897; 1902-1904; 1930; 1942-1947; 1965	Category A (Known Historical Resource; Article 10 landmark; CRHR listed; NRHP eligible)	Category A (Known Historical Resource)	Article 10 Designated Landmark	Restoration of steel doors and arch at main entrance, 2006 (BPA #200605091125) Secondary Elevations: installation of ADA lift on north elevation in 2010 (Permit 201007227241) Installation of ADA ramp on southern façade and ADA lift in the well of northern façade, including rebuilding stairs and installing a new fence; skateboard deterrents on main steps; carpet added to floor in basement-level gymnasium (COA, Case No. 2009.0097A, approved) Interior: Asbestos abatement (BPA #200512120068) Plaster work on nave ceiling (BPA #200605091125) Metal bracing in interior tower stairways, 2007 (BPA #200701171874)	Secondary Elevations: Installation of black, fleur-de-lys security fence post-2005 (which resulted in the removal of a portion of the low, granite wall) Interior: Extant ceiling appears clad in large acoustical tiles, with nonoriginal recessed lighting Infill of southwest corner of basement-level gymnasium to create interior room in 2011 Rear (west) wall at chancel altered, addition of drywall	No	N/A	None (all work appears to be permitted)
1849 Van Ness Avenue (ES-8) 1998	0618001	1920	Category A (Known Historical Resource, California Register eligible)	Category A (Known Historical Resource)	N/A	Installation of L.E.D. band sign in 1999 (BPA #9921448) Installation of upper-level, multi-light windows in 2009 (BPA #200707278069) Canvas awning added at west end of north elevation (permit to legalize, 5/2011, BPA #201105095667)	Security cameras installed on ground level post 1998 (visual observation and historic photographs) Flag poles added on ground-level, post-2011 Replacement metal roll-up door installed	Yes (per SOIS)	The L.E.D. signage is not compliant with the SOIS. To bring the project into compliance, it is recommended that the L.E.D. signage be removed using the least invasive means possible, with care taken to avoid damage to adjacent historic materials, surfaces, and finishes; the wall materials and finishes should be restored to match existing in appearance (including materials, texture, color, thickness, and application method).	Building Permit reviewed per Planning Code

AAU ESTM
Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
1916 Octavia Street (E-9) 1995	0640011	1898	Category B (Properties Requiring Further Consultation and Review)	Category C (Properties Determined Not to be Historical Resources)	N/A	Canvas awning (permit to legalize awning, BPA #201105095670) Reroofing (BPA #9519060)	Security fence added Lighting and security upgrades	No	N/A	Building Permit reviewed per Planning Code
1153 Bush Street (ES-11) 1998	0280026	1911	Category A (Known Historical Resource)	Category A (Known Historical Resource)	N/A	Seismic upgrades (BPA #200310036508)	Canopy at primary entrance (BPA #200804018456, permit filed but never issued) Replacement of garage door Paving of backyard for use as a basketball court Installation of security bars on windows in 2006 In-filling of window on secondary elevation	Yes (per SOIS)	In order to facilitate SOIS compliance, it is recommended that the canopy be removed. Any wall perforations or damage to historic materials should be repaired, patched, and refinished to match existing surfaces in materials and appearance. The removal and in-filling of windows on secondary elevations does not meet Standards No. 2, 3, 5, 6, or 9. However, these elevations are not visible from the public right of way, and the affected features are considered of secondary character-defining importance. A SOIS-compliant approach would be to remove and replace infill and vinyl windows with period-appropriate windows. Design of replacement windows shall be based on evidence (historic photos, extant historic windows) rather than conjecture.	Building Permit reviewed per Planning Code
1080 Bush Street (ES-12) 1999	0276015	1913	Category A (Known Historical Resource)	Category A (Known Historical Resource)	N/A	Installation of illuminated wall sign in 2003 (BPA #20031078608) Re-roofing in 2011 (BPA #201103071517)	Western ground-level door replaced in 2013	Yes (per SOIS)	To facilitate SOIS compliance, the illuminated wall sign should be removed and the original physical appearance and materials of the segmental brick header arches replaced. Any perforations or damage to historic materials should be repaired and surfaces refinished to match existing in materials and appearance. If a new sign is to be installed, it should be placed in a location that does not obscure character-defining features and installed in a manner that results in minimal damage to historic. In general, the recommended approach for installing signage is to utilize mortar joints or the jamb of a noncontributing building component (rather than character-defining masonry). AAU indicates that the western ground-level door was replaced due to damage in 2013. The replacement door installed by AAU is not	Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) AAU Occupation Date	APN	Construction Date	Previous Status (Category A, B, C)	Updated Status (Category A, B, C)	Article 10 or 11 property? (Specify district if applicable)	AAU Alterations (Permitted)	AAU Alterations (No Building Permit Identified to Date)	Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)	Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance	Entitlement and/or Permit Required to Legalize Non-Permitted Alterations
									consistent with the character of the other service door located at the eastern end of the ground level. A SOIS-compliant approach would include the removal of the existing door and replacement with a door that replicates the eastern ground-level door.	
860 Sutter Street (ES-13) 2003	0281006	1913	Category A (Known Historical Resource; National Register listed, district contributor)	Category A (Known Historical Resource)	N/A	Awning cover replaced (as indicated by removal of signage from canopy; BPA #2013012468683)	Security cameras added Windows replaced (vinyl) between 2nd and 5th floors circa 2006 (permit never issued, BPA #201009130696)	Yes (per SOIS)	To facilitate SOIS compliance, non-original vinyl windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.	Building Permit reviewed per Planning Code
817-831 Sutter Street (ES-14) 2006	0299021	1924	Category A (Known Historical Resource; National Register listed, district contributor)	Category A (Known Historical Resource)	N/A	Four aluminum windows replaced with vinyl windows on the east elevation in 2010 (BPA #201008038026 [*permit filed but never issued])	Security cameras added	Yes (per SOIS)	The security cameras are generally compliant with the SOIS; no design modifications are recommended at this time. The window removal and replacement does not meet Standards No. 2, 3, 5, 6, or 9. However, this elevation is not visible from the public right of way, and the affected features are considered of secondary character-defining importance. A SOIS-compliant approach would be to remove and replace vinyl windows with period-appropriate windows, based on documentary evidence. In addition, per the SOIS, original features should be retained and repaired where possible, and, where necessary, replaced in-kind (to match in materials and appearance).	Building Permit reviewed per Planning Code
1069 Pine Street (ES-16) 2000	0275008	1921	Category B (Properties Requiring Further Consultation and Review)	Category C (Properties Determined Not to be Historical Resources)	N/A	ADA accessible entrance added in 2001 (BPA #200104247629)	Storefront enclosed in 2001	Pending	Pending: AAU facilities staff indicates the storefronts on the main evaluation were infilled by AAU in 2001 and subsequently permitted in 2010 (AAU, Memo to SWCA 2/2/2015). However, permits on file with San Francisco Department of Building Inspection reference unspecified improvements and do not definitively show that this work was covered by permit. Archival research to date has failed to identify any photographs depicting the original appearance of the storefronts or original materials/façade design configuration, or the appearance of the façade at the time of AAU Occupation. Therefore, the possibility exists that the change carried out by AAU resulted in a loss	Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
									of integrity for the property. Had the storefronts been intact, the property might have qualified under CRHR Criterion 1 as an exemplification of neighborhood commercial development in Nob Hill. The project completed by AAU may have resulted in the removal, damage, and/or destruction of extant character-defining features and would therefore not comply with the SOIS. Should it be determined that the property retained character-defining features that would have made it eligible for CRHR listing, SOIS compliance could be achieved through restoration of the original rhythm and character of the façade according to documentary or material evidence.	
1055 Pine Street (ES-17) 2000	0275009	1910	Category A (Known Historical Resource)	Category A (Known Historical Resource)	N/A	Security fence installed in 2000 (BPA #200012067337)	Security cameras added Small awning and bordering light fixtures installed at side door on west elevation	No	N/A	Building Permit reviewed per Planning Code
680 Sutter Street (ES-19) By 1982	0283007	1918	Category A (Known Historical Resource; National Register listed, district contributor)	Category A (Known Historical Resource)	NRHP listed; Article 11 Category IV building (contributory), Kearny-Market-Mason-Sutter Conservation District	Primary Elevation: projecting wall sign and installation of hardware/brackets added in 1983 (Permit 8302267) Wall sign removed, 2010, installation hardware and brackets left in place and painted over (BPA #201003319388) Fire escape replaced with shorter fire escape platform; balcony/railing spanning the façade removed in 1996/1997 (BPA #9622494, 20 November 1996, and BPA #9710146, 4 June 1997)	Incompatible replacement windows installed on interior courtyard/west elevation (vinyl double-hung) Secondary Elevations: operable window within the large arched windows on ground-level replaced with aluminum slider installed in 1986 (Permit 8600359);	Yes (per SOIS and Article 11)	To facilitate SOIS compliance, the original appearance of the fire escape's façade-wide platform, fronted by a balconette and decorative railing, should be restored. The primary elevation awning and brackets should be removed and any damaged materials repaired, patched, and refinished to match existing adjacent historic materials. Noncontributing vinyl and aluminum windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) AAU Occupation Date	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
						Awning over residential entry added in 2008 (BPA #200804089006) Operable window within large arched windows on ground-floor replaced with aluminum slider in 1986 (BPA #8600359)				
620 Sutter Street (ES-20) 2005	0283004 A	1918	Category A (Known Historical Resource; individually listed on National Register; Article 11 building)	Category A (Known Historical Resource)	Article 11 Category I building (building of individual significance), Kearny-Market-Mason-Sutter Conservation District	Fire alarm systems (BPA #201002247104) Patching holes in telephone closet (BPA #201104063562)	Replacement of awning sheathing over main entrance and barrel canopy (BPA #9418743 for canopy removal, permit never issued) Security camera added Lighting added to the first floor of the main elevation	Yes (per SOIS and Article 11)	To facilitate compliance with SOIS and applicable Article 11 guidelines, awning covers and frames should be removed and the original appearance of the entrance restored. Following removal of the awning mounting hardware, perforations/damaged areas of masonry on the ornamental door surrounds should be patched, repaired, and restored to match existing in appearance (materials, color, texture, detailing).	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code
655 Sutter Street (ES-21) 1999	029712	1912	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Article 11 Category V (unrated building), Kearny-Market-Mason-Sutter Conservation District	ADA compliance (BPA #200907011803) Seismic upgrades/underpinning (BPA #200212193854)	Security cameras added Signage added above the main entry in 2010 (BPA #201001255231 never issued) Alteration of eastern storefront through application of black tiles and paint and installation of wall-mounted lights, post 1999 Lights added along rear elevations (AAU, Memo to SWCA, 2/2/2016)	Yes (per Article 11)	No changes are required to bring the box sign into compliance with the SOIS. A project modification that would bring the sign into compliance with Article 11 guidelines would include removal of the main entrance sign using the least invasive means possible, repair of the exterior wall surface as needed, and installation of a new sign that is indirectly illuminated as specified in KMMS Design Standards. It is also recommended that the dark storefront colors on the eastern storefront be repainted to lighter hues, in accordance with Article 11 guidelines.	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code
625-629 Sutter Street (ES-22) 1968	0297014	1921	Category A (Known Historical Resource; individually listed on National Register; Article 11 property)	Category A (Known Historical Resource)	Article 11 Category II building (contributory), Kearny-Market-Mason-Sutter Conservation District	Three awnings installed, 1975 (BPA #449072) Fire escape step repair. (BPA #9207785)	Projecting wall sign installed by AAU in 2011 (BPA #201105095671 [*permit filed but never issued]) Noncontributing window replacements (aluminum-frame) on 2nd, 3rd, and 4th floors	Yes (per SOIS and Article 11)	To facilitate compliance with SOIS and applicable Article 11 guidelines, the projecting wall sign should be removed and the original physical appearance of wall materials replaced. If a new sign is to be installed, it should follow the guidelines of the KMMS Design Standards and be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated.	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
							Storefront transom windows removed and/or in-filled with plywood panels Metal stairway with metal gate, rear one-story addition		Window awnings should be removed using the least invasive means possible, with materials patched/repaired as needed and refinished to match existing. If new awnings are to be installed, they should follow the guidelines of the KMMS Design Standards and be of a smaller scale such that they do not obscure character-defining transom windows or other features. Noncontributing, incompatible vinyl windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames	
491 Post Street (ES-23) 2000	0307009	1913-1915	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Article 10 Designated Landmark; Article 11 Category I building (building of individual significance), Kearny-Market-Mason-Sutter Conservation District	Two large statues added at street level, Post Street elevation pre-2008 (BPA #200801112355) Two projecting banners, flanking entrance, installed in 2008 (BPA #200811196923)	Set of double metal doors to basement level from Post Street replaced circa 2010 Security cameras added Skateboard deterrents added to the stairs on Post Street	Yes (per SOIS and Article 11)	To facilitate compliance with both SOIS and applicable Article 11 guidelines, the banner signs and statues should be removed, areas of damage repaired, and the original appearance restored and refinished to match existing in materials and appearance. If a new sign is to be installed, it should be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and designed and placed to comply with applicable Article 11 guidelines.	Certificate of Appropriateness per Planning Code, Article 10; Building Permit reviewed per Planning Code
540 Powell Street (ES-25) 1977	0285009	1909	Category A (Known Historical Resource; individually listed on National Register, Article 11 building)	Category A (Known Historical Resource)	Article 11 Category I building(building of individual significance), Kearny-Market-Mason-Sutter Conservation District	Parapet stabilization repair work, 2001 (BPA #201106067509) Signage approved in 2008 (BPA #200804018449) Two dome-shaped window awnings added to ground story in 1992 (BPA #9214035) ADA entrance (BPA #9812918)	Original second- and third-story windows on the Powell Street and east elevations removed and replaced with double-hung vinyl windows A hole cut in top of the arched window Security cameras added	Yes (per SOIS and Article 11)	To facilitate compliance with SOIS and applicable Article 11 guidelines, the projecting wall sign should be removed and the original physical appearance of wall materials and surrounding details and finish restored. If a new sign is to be installed, it should be placed in a location on a secondary elevation that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated per Article 11 and Article 6 guidelines.	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code

AAU ESTM Overview of Historical Resources Review and Findings										
Address (ESTM Property #) AAU Occupation Date	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
							Security bars on first-story windows along the east (alley) elevation		The barrel window awnings should be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, and the appearance of the original windows/features restored per documentary evidence. Materials should be repaired and refinished to match existing. For the parapet repair to be brought into SOIS compliance, the steel reinforcement bars should be removed and replaced with supports that have minimal visual impacts to character-defining features, such as the central emblem. The appearance and materials of the parapet should be repaired and restored using documentary evidence, and wall materials should be patched and refinished to match existing. Non-original vinyl windows should be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, surfaces, or materials. Using documentary evidence or extant original windows, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames. Similarly, the altered original window on the façade should be replaced and its original character/appearance restored.	
410 Bush Street (ES-26) 1994	0270007	1915 and 1946	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Article 11, Category V (Unrated); Kearney-Mason-Market-Sutter Conservation District	Signs (BPA #9494295 and #9494294) Sign permit renewal (BPA #200512130163 and #200511218690) Wall sign and painted sign removal (BPA # #201006033730 and #201003228698) Windows on the east elevation (alley) replaced in 2010 (BPA #201008098351)	Security camera in main entry portico Exterior tile panels over-painted Planter enclosed and sheathed in black tile Box sign attached to perimeter fence	Yes (per Article 11)	A project modification that would bring signage into compliance with Article 11 guidelines would include removal of the projecting box signs, repairing/patching and refinishing the exterior wall to match existing in materials and appearance, and installation of a new sign that is indirectly illuminated, designed, and mounted as specified in applicable guidelines for signage in Article 11 Conservation Districts.	Major Permit to Alter reviewed per Planning Code, Article 11; Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) AAU Occupation Date	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
77-79 New Montgomery (ES-27) 1992	3707014	1913/1920 and 1960	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Article 11, Category I (building of individual significance); New Montgomery-Mission-Second Street Conservation District	Reroofing, 2000 (BPA #200011286673) Awnings installed over storefront windows, New Montgomery Street, Mission Street, and Jesse Street, 2001 (BPA #200106282581) Current signage installed, 2011 (BPA #201105095673)	Security cameras added Secondary entrance door (eastern end, Jesse Street elevation) installed, 2009 Roll-up door installed on Jesse Street elevation, 2011	Yes (per SOIS and Article 11)	The projecting signs do not comply with the SOIS or Article 11 guidelines. The three large projecting signs, placed above the ground story, interrupt and obscure what was intended to be a continuous, unified design. In order to facilitate SOIS and Article 11 compliance, it is recommended that the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) be removed, and exterior surfaces patched and repaired where necessary and refinished to match existing in materials and appearance. In order to facilitate compliance with Article 11 guidelines, the one remaining sign should be designed, installed, and located in such a way that it meets the specifications of Article 11, with respect to illumination, placement, and overall design. In addition, during site inspections, exposed conduit was noted on the exterior walls left of the entrance. It is recommended that any exposed conduit be concealed from view, per the Article 11 guidelines for properties in adopted Conservation Districts.	Major Permit to Alter, per Planning Code, Article 11; Building Permit reviewed per Planning Code
180 New Montgomery (ES-28) 1995	3722022	1920	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Article 11, Category V (Unrated); Kearney-Mason-Market-Sutter Conservation District		Three projecting, illuminated blade signs added, post-1995 In-filled storefront panels at the corner of New Montgomery and Natoma Street painted red Security cameras added	Yes (per SOIS and Article 11)	The projecting signs do not comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed just above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. In order to facilitate compliance, it is recommended that the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) be removed, and the original surface patched and repaired where necessary and	Major Permit to Alter per Planning Code, Article 11; Building Permit reviewed per Planning Code

AAU ESTM

Overview of Historical Resources Review and Findings

Address (ESTM Property #) *AAU Occupation Date*	*APN*	*Construction Date*	*Previous Status (Category A, B, C)*	*Updated Status (Category A, B, C)*	*Article 10 or 11 property? (Specify district if applicable)*	*AAU Alterations (Permitted)*	*AAU Alterations (No Building Permit Identified to Date)*	*Project Modifications Recommended? (per Secretary's Standards and/or Article 10/11)*	*Description of Recommended Project Changes/Reversal & Approach for SOIS and/or Article 10/Article 11 Compliance*	*Entitlement and/or Permit Required to Legalize Non-Permitted Alterations*
									refinished to match existing in materials and appearance. In order to facilitate compliance with Article 11 guidelines, the one remaining sign would ideally be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting. In addition, several in-filled storefronts have been painted bright red. While paint color is generally reversible, the bright primary color is in noncompliance with Article 11, Appendix F, Section 7: "Traditional light colors should be used in order to blend in with the character of the district. Dissimilar buildings may be made more compatible by using similar or harmonious colors, and to a lesser extent, by using similar textures."	
58-60 Federal Street (ES-30) 2005	3774074	1911/1912	Category A (Known Historical Resource)	Category A (Known Historical Resource)	Contributor to Article 10-listed Historic District; South End Historic District		Security cameras added, post-2005	No	N/A	Certificate of Appropriateness per Planning Code, Article 10; Building Permit reviewed per Planning Code
460 Townsend Street (ES-33) 2009	3785023	1915	Category A (Known Historical Resource; contributor to eligible local historic district)	Category A (Known Historical Resource)	N/A		Security cameras added, post-2009	No	N/A	Building Permit reviewed per Planning Code
466 Townsend Street (ES-34) 2005	3785005	1920	Category A (Known Historical Resource; contributor to eligible local historic district)	Category A (Known Historical Resource)	N/A		Installation of metal vent hood on infilled entry on main (south) elevation	No	N/A	Building Permit reviewed per Planning Code

Appendix HR-B:

Academy of Art University Existing Sites Technical Memorandum Historical Resources Evaluations and Secretary's Standards Compliance Review

A. Bush 410 (Article 11, Category V)
B. Bush 1080 (1D; project modifications recommended)
C. Bush 1153 (1D; project modifications recommended)
D. Federal 58-60 (Article 10 listed historic district, 3D; eligible for NRHP; no changes recommended)
E. Lombard 1727 (3CD, eligible; no project modifications recommended)
F. New Montgomery 77 (Article 11 New Montgomery-Mission-Second Street CD, 3CB; project modifications recommended)
G. New Montgomery 180 (Article 11 New Montgomery-Mission-Second Street CD, 3CB; project modifications recommended)
H. Octavia 1916 (6Z, ineligible)
I. Pine 1055 (2S2, no changes recommended)
J. Pine 1069 (6Z, ineligible)
K. Post 491 (Article 11 Kearney-Market-Mason-Sutter CD, Category I, 3S; project modifications recommended)
L. Powell 540 (Article 11 Kearney-Market-Mason-Sutter CD, Category I, 3S; project modifications recommended)
M. Stockton 2340 (6Z, ineligible)
N. Sutter 620 (Article 11 Kearney-Market-Mason-Sutter CD, Category I, 3S; no changes recommended)
O. Sutter 625-629 (Article 11 Kearney-Market-Mason-Sutter CD, Category II, 3S; project modifications recommended)
P. Sutter 655 (Article 11 Kearney-Market-Mason-Sutter CD, Category IV, 3CD; project modifications recommended)
Q. Sutter 680 (1D; project modifications recommended)
R. Sutter 817-831 (1D; project modifications suggested)
S. Sutter 860 (1D; no changes recommended)
T. Taylor 2295 Street (appears ineligible; not within Article 11 Conservation District)
U. Townsend 460 (5D3; no changes recommended)
V. Townsend 466 (5D3; no changes recommended)
W. Van Ness 1849 (3CS; project modifications recommended)
X. Van Ness 2151 (Article 10 listed building, 2S; no changes recommended)
Y. Van Ness 2209 (3S, no changes recommended)
Z. Van Ness 2211 (6Z, ineligible)

410 BUSH STREET (ES-26)

APN: 0270007

Construction Date: 1915 and 1946

Architect/Builder/Designer (if known): O'Brien Brothers, Inc. (1915); Albert F. Roller, architect and Barrett & Hilp, general contractor (1946)

Previous Status: Category A; Article 11, Category V (Unrated), Kearney-Mason-Market-Sutter Conservation District

Date of Past Surveys/Evaluations: 1978; 1985 (adoption of Conservation District)

AAU Acquisition Date: 1994

Historical Resource? Yes

Project Modifications Recommended? Yes (per Article 11 Design Guidelines)

BUILDING AND PROPERTY DESCRIPTION

Originally designed as a parking garage, 410 Bush Street is a 1913 concrete building redesigned and remodeled as an International Style-inspired office building in 1946. The building is rectangular in plan and set flush to the sidewalk. It occupies a long rectangular, sloped lot that runs the length of the city block, extending along St. George Alley north to Pine Street. The primary elevation faces Bush Street.

The building is capped with a flat roof, terminating in shallow copping along the roofline. Spanning the façade, a cantilevered, unadorned wall projection divides the ground-floor entrance and windows with the smooth stucco-clad walls on the top stories. Characteristic of the style, the structure features smooth, unornamented wall surfaces with minimal detailing.

On the first floor, the primary elevation consists of a recessed storefront entrance, with full-length aluminum-framed windows and paired entrance doors, in the western portion of the facade. Two smooth, stucco-clad piers flank the storefront and entrance. On the southeast corner of the building are recessed panels clad in decorative tile (based on historic photos, the tiles appear to have been glazed and possibly earth-toned in color; the tiles were painted over at an unknown date). Directly above the first story is a boxed overhang, which turns the corner and partly extends along the secondary elevation in the alley. The second and third stories are clad in smooth stucco with no fenestration.

Figure 1. 410 Bush Street. (Source: SWCA)

Figure 2. 410 Bush Street, detail, first story of the primary elevation. (Source: SWCA)

The smooth-stucco sheathing of the primary elevation extends on the side (eastern) elevation partially, approximately one bay deep. On the east elevation, the first floor displays ribbon windows on the first and second stories, with each set enclosed by a stucco-clad frame. East elevation fenestration generally consists of single, rectangular, flushed casement windows and aluminum sliders. Exterior walls along the eastern and northern (rear) elevation, facing Pine Street, display traces of board-formed concrete.

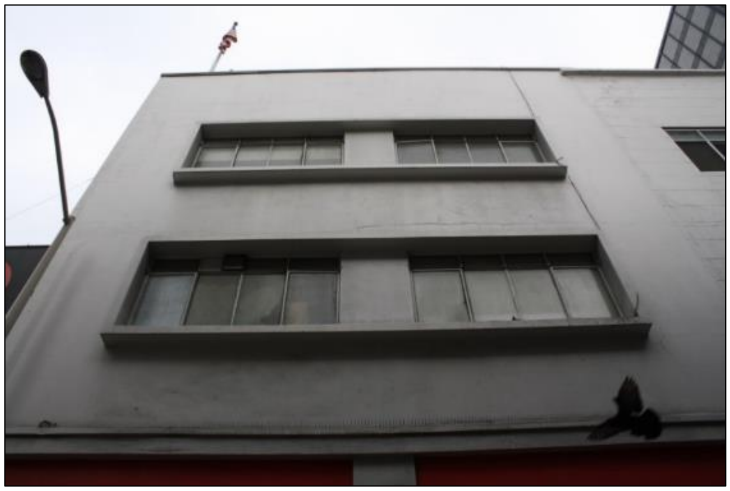


Figure 3. 410 Bush Street, close up of ribbon casement windows on the east elevation. (Source: SWCA)

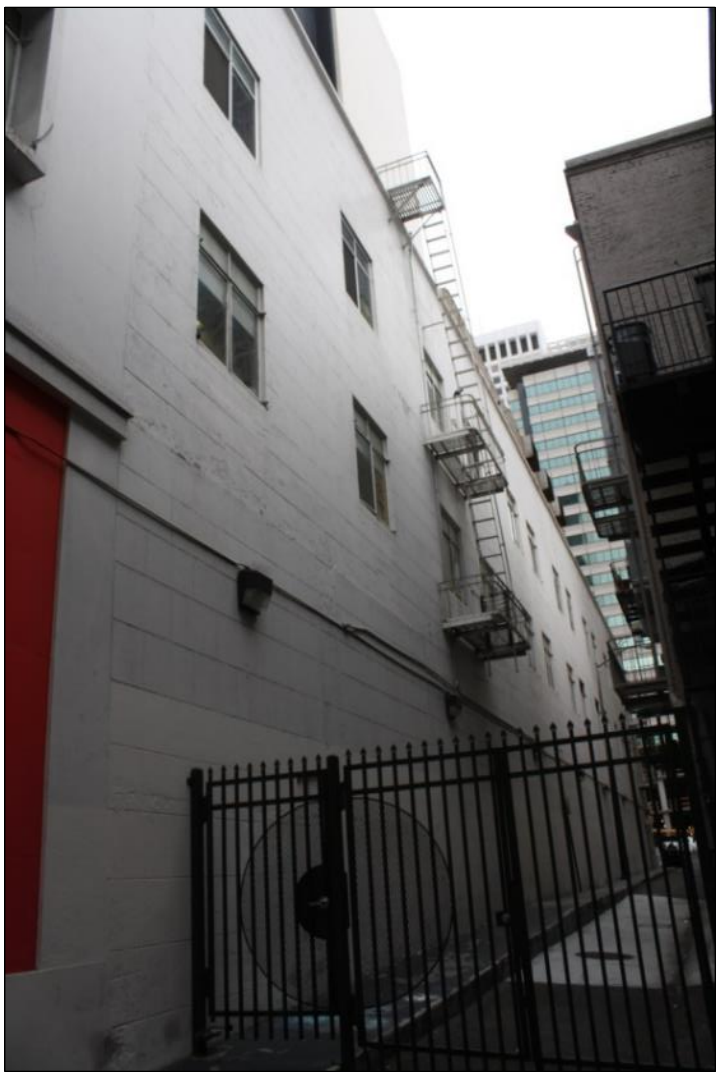


Figure 4. 410 Bush Street, northwest perspective of the eastern elevation and alley. Shows traces of board-formed concrete. (Source: SWCA)

The rear elevation along Pine Street has a one-story portion featuring three roll-up doors of varying sizes and a mansard roofline. The traces of board-formed concrete are visible throughout the rear elevation. A metal chain-link fence restricts access to the roll-up doors from Pine Street.

Figure 5. Pine Street elevation of subject property. (Source: SWCA)

SITE HISTORY

According to building permits on file with the San Francisco Planning Department, 410 Bush Street was initially designed and constructed in 1915 as the St. George Garage.[1] This date falls within the era of rapid, post-fire construction within the Kearny-Market-Mason-Sutter Conservation District, with most of the district's architecturally significant buildings constructed between 1907 and 1918. Made of reinforced concrete and rising 41 feet, the building was commissioned by Charles F. Haulou. San Francisco architects the O'Brien Brothers, Inc. constructed the property at a cost of $25,000 in early 1915, with additional structural work carried out by the O'Brien Brothers in July 1915. The O'Brien Brothers completed numerous commissions in San Francisco, with a focus on commercial and automobile-related designs in the 1910s and 1920s. By 1933 and into the early 1940s, the property, now owned by the Grant Company, continued operating as a garage. All floors of the building, including the basement, were originally utilized for parking.

In the immediate postwar period, in 1946/1947, the St. George Garage was converted to office space by the Westinghouse Electric Company.[2] The early-twentieth-century appearance and features of the building were replaced, and the façade underwent a $150,000, Mid-Century Modern make-over by San Francisco architect Albert F. Roller, in collaboration with contractors Barrett & Hilp.

A native of San Francisco, Roller (1891-1981) worked in the offices of Coxhead & Coxhead, Ward & Blohme, among others, before opening his open practice in 1926. Roller's many commissions in San Francisco include 100 California Street (Bethlehem Steel Building, 1959), completed by Roller and Welton

---

[1] Building Permit 60670.

[2] Building Permit 93411; *The Architect and Engineer*. November 1949, p. 15.

Becket in 1959, 444 Taylor Street (National Broadcasting Company Studios, 1941), 1111 California Street (Masonic Auditorium, 1958), and 155 Hayes Street (AAA Building, 1959).[3] In the postwar period, Roller served on the San Francisco Redevelopment Agency between 1951 and 1953, as well as the San Francisco Art Commission between 1955 and 1958.[4] According to the *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, Roller is recognized as a master architect in San Francisco.[5]

As presented in *Architect and Engineer* in November 1949, "The Westinghouse Electric Corporation's new three-story building at 410 Bush Street in San Francisco now provides a thoroughly modern, centrally located, office headquarters for the company's engineering sales and executive personnel… The new quarters affords ample space to meet current and immediate future office space requirements and fills a long need for consolidation in one downtown, central location."[6] Following the remodel, the building spanned approximately 40,000 square feet, with the 40-foot storefront facing Bush Street (see figures below).

By 1967, the property was owned and occupied by Commercial Union Insurance Group, which remained in the building through at least 1975. At the time of the 1978 San Francisco Architectural Quality Survey, 410 Bush Street still retained signage for Commercial Union Company and appeared to be for sale at the time (see figure below). Until AAU occupied the property in 1994, a variety of tenants appear to have occupied its office space, including a San Francisco branch of the United Way, which operated in the building from the early 1980s until 1994.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

[3] City and County of San Francisco Planning Department, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. San Francisco Planning Department, 2011, p. 261.

[4] "Albert F. Roller, obituary," *San Francisco Chronicle,* 13 July 1981.

[5] *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement,* p. 261.

[6] "New Westinghouse Building, San Francisco, Albert F. Roller, Architect, Barrett & Hilp, General Contractors." *The Architect and Engineer*. November 1949, p. 15.

Figure 6. 410 Bush Street, as shown in *Architect and Engineer*, November 1949.

Figure 7. 1964 photo, 410 Bush Street. (Source: San Francisco Public Library History)

Figure 8. 1978 photo, 410 Bush Street. (Source: San Francisco Architectural Heritage Survey)

Figure 9. 1938 Aerial Photograph, 410 Bush Street. (Source: Environmental Data Resources)

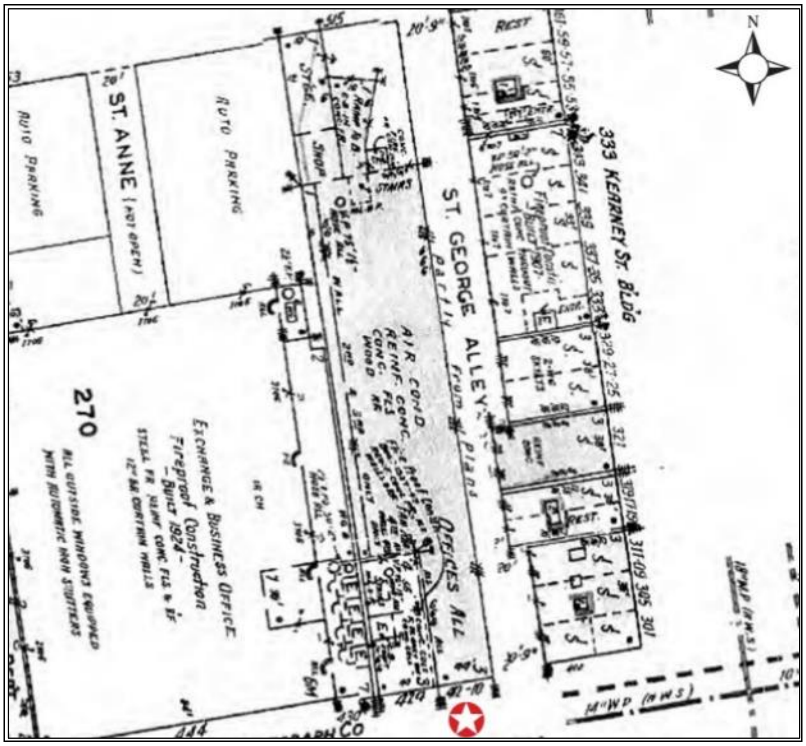


Figure 10. 1948 Sanborn Fire Insurance Map, 410 Bush Street. (Source: Environmental Data Resources)

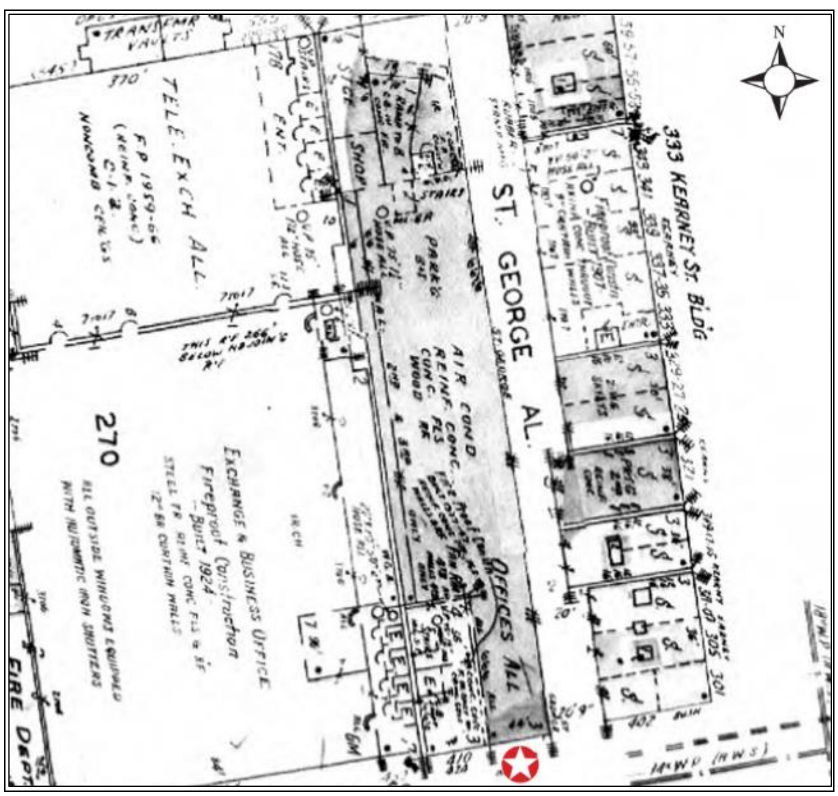


Figure 11. 1974 Sanborn Fire Insurance Map, 410 Bush Street. (Source: Environmental Data Resources)

Figure 12. 1974 Aerial Photograph, 410 Bush Street. (Source: Environmental Data Resources)

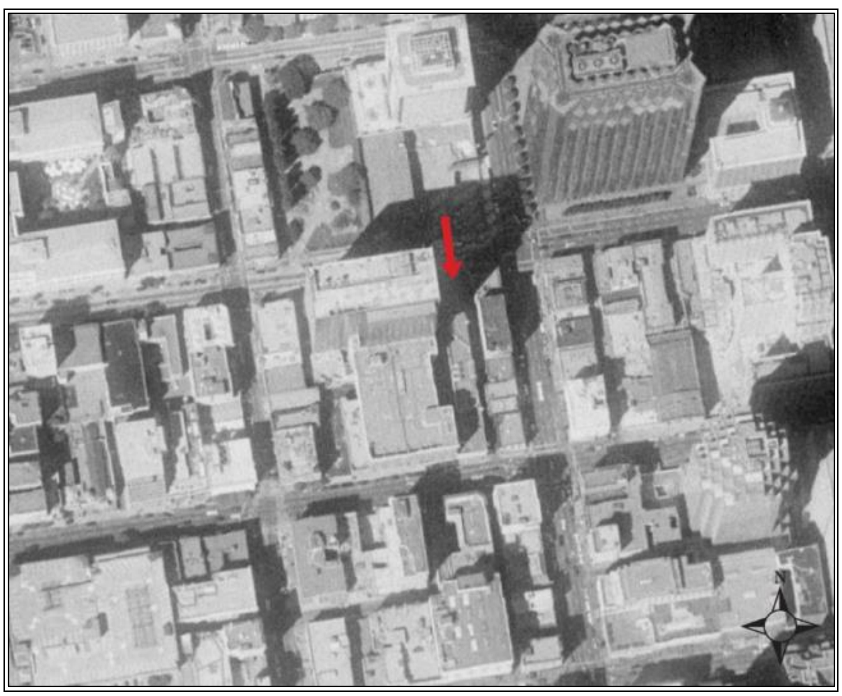


Figure 13. 1998 Aerial Photograph, 410 Bush Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 410 BUSH STREET / APN: 0270007

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Feb. 3, 1915 (May 4, 1915)	60670	Charles F. Haulou	O'Brian Brothers Inc.	$25,000	Reinforced concrete garage building (three story, and basement) 41 ft. height.
July 13, 1915 (July 16, 1915)	63952	Charles F. Haulou	O'Brian Brothers Inc.	$4,200	Add extra columns of reinforced concrete on building side. Also sidewalk construction.
Jan. 30, 1933 (Feb. 4, 1933)	284 (3713)	Grant Company		$350	Widen out concrete ramp 6 ft. from street to 1st floor using same construction; concrete joist construction.
Feb. 7, 1934	5390 (8109)	Grant Company		$175	Brace firewall as per blue-print.
May 20, 1934 (May 25, 1937)	27660 (27795)	St. George Garage		$450	To erect (1) neon electric display (horizontal double face sign panel). To be located on front face of building.
Dec. 5, 1941 (Dec. 9, 1941)	67150 (64358)	The Grant Company	Douglas Stone	$500	Office partitions as per blue print.
May 10, 1946 (May 22, 1946)	88725 (82764)	Standard Oil Company (St. George Garage)		$175	Install D.F. Horiz. Chevron Gas Station sign.
Dec. 31, 1946 (Jan. 8, 1947)	93411 (87208)	Westinghouse Electric	Albert F. Roller	$150,000	Alteration, converting garage to offices.
July 1, 1947 (July 7, 1947)	98446 (90993)	Westinghouse Electric Corp.		$950	Install S.F. Horiz. Electric sign.
Oct. 22, 1948	112257	Westinghouse Electric Corp.		$200	Fire limits, stairs avoided
Nov. 14, 1961 (Dec. 5, 1961)	257775 (231196)	Grant Company		$150	Remove and replace section of sidewalk on St. George Street.
Jan. 7, 1963 (Jan. 14, 1963)	276439 (246850)	Westinghouse Electric Corp.		$5,000	Remodel vestibule as per drawing. Fireproof ceiling with identical fixtures and painting.
Oct. 23, 1967 (Nov. 20, 1967	349525 (314077)	Commercial Union Insurance Group		$5,000	Replace existing canopy at rear of Pine Street and St. George alley.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 25, 1967	314029	Commercial Union Insurance Group	Monroe & Lefebvre	$100	Put aluminum glass doors opening onto St. George alley.
Aug. 21, 1967	310991	Commercial Union Insurance Group	Paul J. Johansson	$62,440	Remodel interior offices. Remove some partitions and install new partitions.
Oct. 28, 1968	325843	Commercial Union Insurance Group	Harold C. Dow	$15,000	Present unfinished area on 1st floor to be finished to match existing. 2nd floor partitions installed to enclose office. New light fixtures on 1st floor.
Mar. 26, 1975 (Apr. 1, 1975)	444904	Commercial Union		$3,500	Kitchen sink work.
Jun. 7, 1982 (Aug. 31, 1982)	493138	United Way of the Bay Area	Thomas Hsieh, AIA	$75,000	Carpentry, metal stud walls, acoustical ceilings, gypsum board walls, ceramic tile floor and walls, resilient flooring, carpeting, painting, window drapery, AC
May 24, 1994	746472 and 746473	AAU		$10,500	Signage.
Dec. 17, 1997	09725277 (839681)	AAU		$20,800	Sheet rock on half of 3rd floor ceiling. Drop soffit wall in sculpture room. Create ADA bathrooms. Modify front door to meet ADA requirements.
Dec. 31, 1997	840390	AAU		$1	Revised approved permit #09725277 (839681): Change 3rd floor gyp. board to 1hr. Ratgo T-Bar acoustical tile.
Feb. 19, 1998	09802789 (803356)	AAU		$25,000	ADA accessible bathroom 1st floor. Fire alarm system.
May 28, 1998	850622	AAU		$25,000	Installation of fire alarm system.
Oct. 28, 1998	863855	AAU		$3,000	Install a kiln.
July 7, 1999	882986	AAU		$10,000	Life-safety upgrade.
Dec. 13, 2005	1074557	AAU		$1	Revise attachment detail for sign permit #9404205. Sign will be mounted on concrete wall 10 feet above grade.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 13, 2009	1185167	AAU		$28,000	Install ducts on roof, and new exhaust fan. New metal stair with hand rail for service offices.
Sep. 17, 2009	1194705	AAU		$3,000	Add one duct detector and one relay to existing fire alarm system.
Aug. 2, 2010	1217854	AAU		$20,000	Replace two existing kilns with new kilns. Minor change to 1hr. passageway.
May 13, 2011	1237819	AAU		$60,000	Upgrade to fire alarm system; remove old components and install new smoke detectors, strobes, power supplies, etc.
June 21, 2012	1267594	AAU		$228,730	Install new fire sprinkler system.
June 4, 2010	1213456	AAU		$100	Removal of two painted wall signs
June 10, 2010	1213842	AAU		$500	Removal of one wall sign
Aug. 8, 2010	201008098351	AAU		$20,000	Replace existing deteriorating windows on east elevation.
Apr. 8, 2011	201104083776	AAU		$96,000	Verify occupancy classification and use. Remove or relocate obstruction of Fire Alarm & exit egress. Obtain use permit for kilns. Revise basement egress.
May 3, 2011	201105035268	AAU		$228,730	Install new fire sprinkler system in existing building. (445 sprinklers) and 6-inch underground, and class 1 standpipe.
May 11, 2011	201105115815	AAU		$60,000	Additions to existing fire alarm system: two new power booster supplies, 3 duct detectors w/relays, 1 smoke detector, 6 strobes, 24 horn strobes….
June 5, 2012	201206051896	AAU		$10,000	Revision to 5815: 1 horn, 1 strobe, 1 horn/strobe addition. 2 horn/strobe and 1 strobe being removed. 4 horn strobe to be relocated.
Apr. 1, 2014	201404012209	AAU		$6,000	Revision to 5815: 1 horn, 2 strobes, 5 horn/strobes, and 7 dual monitor modules being added and 4 horn/strobes are being relocated.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

This section evaluates the subject property for potential eligibility for the California Register of Historical Resources (CRHR). According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if it meets one or more of the following criteria, which are modeled on National Register of Historic Places (NRHP) criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.
>
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance.

As part of the San Francisco Architectural Heritage Survey, 410 Bush Street was classified as "Category D, Minor or No Importance." The building is also classified as an "Unrated Building" within the Article 11 Kearny-Mason-Market-Sutter Conservation District, adopted in 1985. As of 2015, the property does not appear to have been subject to further survey or evaluation.

While 410 Bush Street possesses a number of character-defining features typical for a low-rise International Style commercial property, the property does not appear to meet the eligibility criteria established in the *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. In terms of significance on the basis of architectural design, eligibility at each level is reserved for buildings reflecting a "notable full expression of the International Style."[7] As an early twentieth-century garage remodeled to an International Style office building, the design and character-defining features reflecting this association are relatively modest and not a full expression but rather one driven by the extant property.

The evaluation also considered potential CRHR eligibility for the property's embodiment of a significant era/pattern of commercial development in downtown San Francisco. Available evidence did not suggest that the property meets CRHR criteria for this association. The building was not the first San Francisco office of Westinghouse Electric; the renovation of the garage was completed to consolidate the company's personnel in a single location.[8] The property also does not appear to possess any other direct associations with a significant event or pattern of events, or persons. Therefore, the property appears ineligible for the CRHR as an individual resource. However, 410 Bush Street is considered to be of interest to local planning (California Historic Resources Code 6L), as a notable remodeling project by master architect Albert Roller and as an example of a low-rise International Style commercial property in downtown San Francisco.

While 410 Bush Street does not appear individually eligible for the CRHR, it falls within the Kearny-Market-Mason-Sutter Conservation District and is therefore subject to its provisions. The alteration history for the building, along with available building permits on file with the San Francisco Planning Department, is described below, followed by a discussion of compliance with Article 11 and its provisions for Category IV buildings.

---

[7] *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement,* p. 178.

[8] "New Westinghouse Building, San Francisco, Albert F. Roller, Architect, Barrett & Hilp, General Contractors." *The Architect and Engineer*. November 1949, p. 15.

ALTERATION SUMMARY

This section describes known alterations to the property prior to and following AAU's acquisition. Alterations are broken down by primary elevation, secondary elevation, and interior spaces historically accessible to the public. In cases where available archival sources did not confirm dates for alterations, inconclusive changes are listed below.

PRIMARY ELEVATION

Pre-AAU Alterations:

- The extant façade was designed by San Francisco architect Albert F. Roller in 1946/1947 for Westinghouse Electric (Permit 93411)
- Main entry doors appear to have been replaced since 1946 remodel (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security camera located within main entry way
- Exterior tile panels painted
- Planter enclosed and sheathed in black tile to create bench after 1994
- Projecting wall sign approved by permit in 1994 (Permit 09725277)

Dates inconclusive or awaiting further data:

- Sprinkler located in the middle of black tiles on the façade

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Unknown; awaiting data

Post-AAU Alterations:

- Windows on the east elevation (alley) replaced in 2010 (Permit 201008098351)
- Painted signage approved in 1994 (Permit 09725277)
- Box sign attached to perimeter fence (visual observation)

Dates inconclusive or awaiting further data:

- Along the east elevation (alley) light fixtures have been installed
- North (Pine) elevation has a mansard roof on the one-story portion of the building

INTERIORS

Changes to the lobby since its 1946 remodel include installation of new lighting, partitions, and ceiling tiles. In addition, new fire sprinkler systems were installed in May 2011 (Permit 201105035268) and June 2012 (Permit 1267594).

ARTICLE 11 ANALYSIS

410 Bush Street is a Category V (Unrated) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the San Francisco Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11 properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[9]

Article 11 defines five levels of properties within Conservation Districts: Categories I and II ("Significant Buildings"), Categories III and IV ("Contributory Buildings"), and Category V ("Unrated"). Each level is subject to varying types of design review. For Category V buildings within Conservation Districts, "all major exterior alterations…shall be compatible in scale and design with the District as set forth in Sections 6 and 7 of the Appendix which describes the District."[10]

Guidance and requirements for changes to Article 11 Conservation District properties are also provided in *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* (San Francisco Planning Department, June 2009) and *Article 6, Sign Controls* (San Francisco Planning Department, November 2012). Article 11 indicates that signs within Conservation Districts are subject to *Article 6, Signs*.

Two alterations to 410 Bush Street involve changes for which applicable design requirements provide guidance. These changes are the projecting, illuminated wall signs on the façade and rear elevation and black and red painted recessed tile panels on the primary and east elevations.

In terms of signage, Article 11, Section 1111.6, *Standards and Requirements for Review of Applications for Alterations* states that

> an application for a business sign, general advertising sign, identifying sign, or nameplate to be located on a Significant or Contributory Building or any building in a Conservation District shall be subject to review by the HPC pursuant to the provisions of this Article. The HPC shall disapprove the application or approve it with modifications if the proposed location, materials, typeset, size of lettering, means of illumination, method of replacement, or the attachment would adversely affect the special architectural, historical or aesthetic significance of the subject building or the Conservation District.[11]

The Historic Preservation Design Standards established by the San Francisco Planning Department for signage and awnings within the Kearny-Market-Mason-Sutter Conservation District offer the follow guidance and requirements for signs: "Methods of illumination: Ideally, all signs should appear to be indirectly illuminated. This is commonly achieved by installing an external fixture to illuminate the sign or by using a reverse channel halo-lit means of illumination" and "All conduit required for all new signage

---

[9] San Francisco Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.

[10] San Francisco Planning Code, Article 11, Section 1111.6.d.

[11] San Francisco Planning Code, Article 11, Section 1112.c.

must be concealed and may never be attached or left exposed on the face of the building, the sign structure, or the sign itself."[12]

Article 6 establishes the following requirements for signs within Conservation Districts: signs with internally illuminated box signs with glass or plastic lenses are not permitted. In addition, signage above the architectural base of the building are not permitted.[13]

The projecting box signs located on the façade (south) and rear (north) elevations of 410 Bush Street are inconsistent with current guidelines and requirements for signage within the Kearny-Market-Mason-Sutter Conservation District. The signs appear to be internally illuminated box signs with plastic lenses; on the façade, the sign is supplied power via conduit, which is currently exposed and attached to the face of the building. Under Article 11 guidelines, illuminated box signs are not permitted, and conduit must be concealed, rather than attached to and/or exposed on the face of the building, the sign structure, or the sign itself.[14]

Article 11, Appendix E, Section 1117(3), "Materials and Colors," states that "traditional light colors should be used [in the Kearny-Market-Mason-Sutter Conservation District] in order to blend in with the character of the district." Based on historic photos, the recessed tile panels on the façade and east elevation appear to have been glazed tile (rather than overpainted tile). The current paint colors of these tile panels are black and red, which appears to be inconsistent with current guidelines for the Conservation District.

RECOMMENDATIONS

410 Bush Street is a Category V property within the Kearny-Market-Mason-Sutter Conservation District. In addition to the property's status within the Conservation District, this evaluation considered the property (which is primarily a post-World War II remodel) for possible CRHR eligibility. In terms of the CRHR, the property was found ineligible as an individual resource for the CRHR but was found to be of interest to local planning (California Historic Resources Status Code 6L), as an example of a Mid-Century Modern remodeling project by modern master architect Albert Roller and as an example of a low-rise International Style commercial building in downtown San Francisco. Because the property does not qualify for the CRHR, this analysis did not include a *Secretary's Standards* analysis.

Given the property's Article 11 status, however, the exterior signs on the façade (south) and rear (north) elevations do not appear to comply with current guidance for signage within Conservation Districts. A project modification that would bring the signage into compliance would include removal of the project box signs, repairing/patching and refinishing the exterior wall to match existing in materials and appearance, and installation of a new sign that is indirectly illuminated as specified in applicable guidelines for signage in Article 11 Conservation Districts.

[12] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District,* June 2009, p. 3.

[13] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.

[14] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11-13.

1080 BUSH STREET (ES-12)

APN: 0276015

Construction Date: 1913

Architect/Builder/Designer (if known): Maxwell G. Bugbee

Previous Status: Category A

Previous CHR Status Code: 1D (contributor to designated NRHP historic district)

Date of Past Surveys/Evaluations: 1968, 1976, 1989, 1991

AAU Acquisition Date: 1999

Current CHR Status Code: 1D

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

1080 Bush Street is a six-story, four-bay-wide brick- and stucco-clad building constructed in 1913 as the Ansonia Apartments. The building is T-shaped in plan and set flush to the sidewalk. It occupies a slightly sloped, rectangular lot, with the primary elevation facing Bush Street. (The north, east, and west elevations are visible only from the rear of the property.) Displaying Classical Revival decorative elements, the building has a symmetrical design composition and is capped with a flat roof. The roof line is marked by a stepped, brick-clad parapet, which terminates in shallow copping along the eave line.

On the ground story, the primary entrance is recessed via an entry portico, with floors and walls clad with marble and tile. The entrance is centered on the ground floor, flanked on each side by small paired rectangular windows and a single door. Defining the vertical axis on each side of the building are stacked tripartite bay windows, resting on molded recessed panels. Bay windows through the middle floors are topped with a molded stucco-clad band. Defining the building's three-part vertical design composition are projecting cornice lines, accented beneath with decorative modillions. This cornice detailing spans the façade between the first/second and fourth/fifth stories. The center bays consist of paired windows set within subtly arched brick headers. This arch motif is repeated across the ground story, in a series of window and door openings spanning the façade.

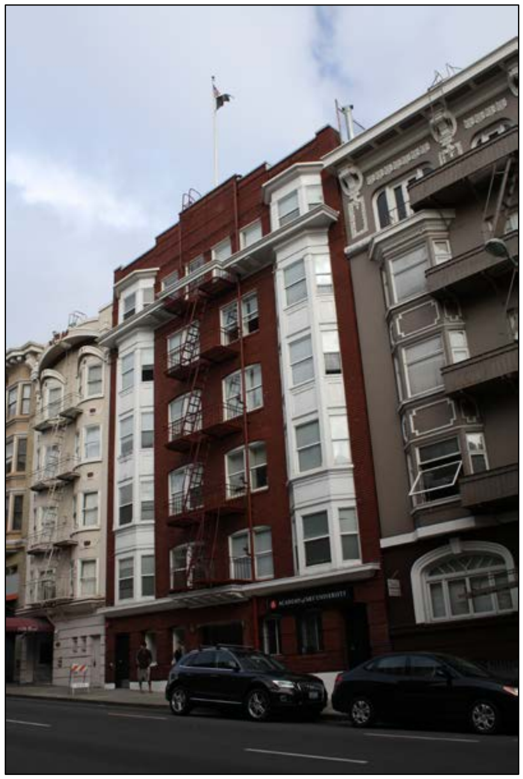


Figure 14. 1080 Bush Street, detail. (Source: SWCA)

The exterior walls exhibit decorative variations in brick patterning, including alternating rows of stretcher bond brick veneer punctuated with recessed rows of header bond. Arched window and door openings throughout the façade consist of header bond.

Fenestration generally consists of single-pane double-hung windows, as well as fixed and sliding windows. One original metal, paneled door is located on the first floor. Doors on the first floor and some windows feature segmental arched openings. Noncontributing metal security gates have been installed in front of the main entry and two of the first story windows.

Figure 15. 1080 Bush Street, detail, first story of the primary elevation. (Source: SWCA)

Figure 16. 1080 Bush Street, detail, projecting bay windows of the primary elevation. (Source: SWCA)

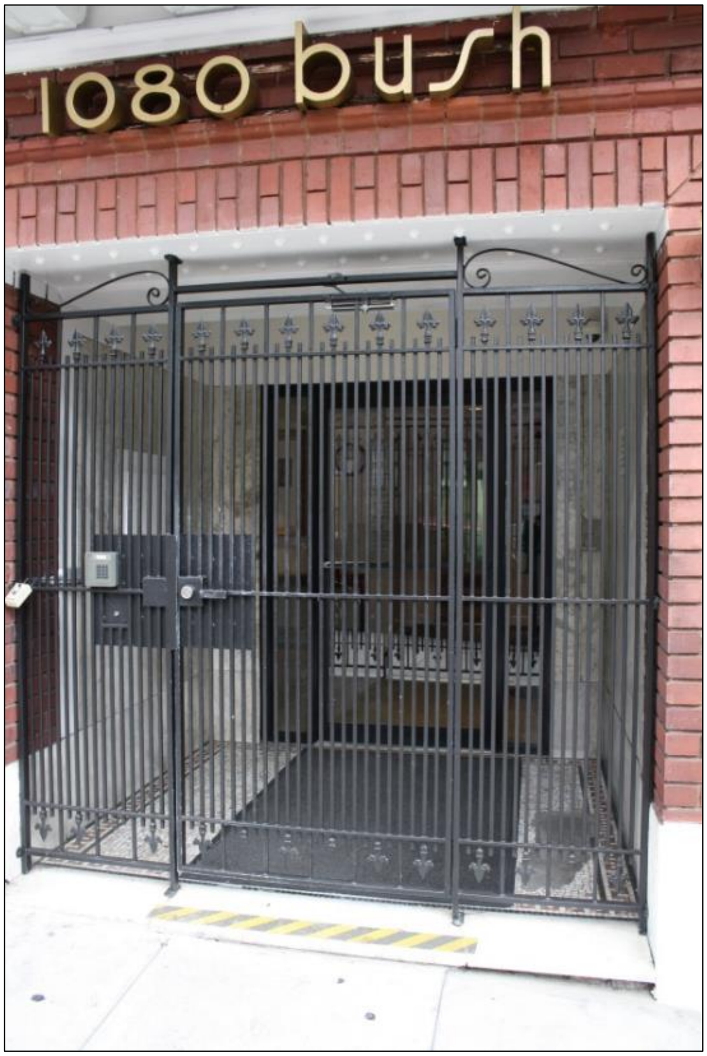


Figure 17. 1080 Bush Street, detail, main entry on the primary elevation. (Source: SWCA)

The secondary elevations are only visible from small pathways constructed alongside the building leading to a small unbuilt area at the rear of the property. Similar to the primary elevation, the east and west elevations feature stacks of windows with molded recessed panels spanning from the second to the sixth story. Smaller, single windows with segmental arched opening are also present.

On the north (rear) elevation, each story displays a central single-door with a pair of windows on either side. A metal staircase extends from the façade. Metal and aluminum sliders, awning, vinyl double-hung, and wood double-hung windows are present on the secondary elevations in a variety of configurations. Various styles of metal security gates have been added over the first story windows on the east and west elevations and all windows on the north elevations.

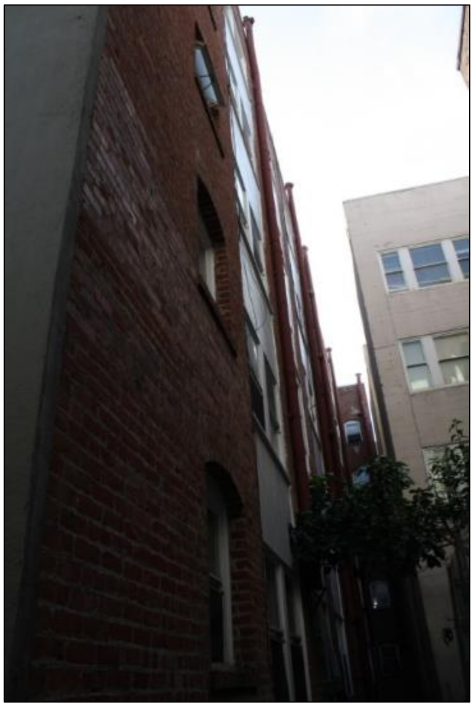


Figure 18. 1080 Bush Street, northwest perspective of the eastern elevation. (Source: SWCA)

Figure 19. 1080 Bush Street, southern perspective of the north elevation. (Source: SWCA)

The main entry leads to a lobby with a small alcove immediately next to the main door for resident's mail boxes. As the lobby has been renovated since its original construction, the current finishes include laminate floors, sheetrock walls and ceiling, and recessed lighting. Visible under the fixed windows in the alcove is an area of exposed brick. An original Otis elevator is extant; however, the elevator doors have been replaced. The staircase from the lobby features a wood balustrade. The stairs and upper hallways have been carpeted and the doors replaced and trim replaced.

Figure 20. Interior lobby of subject property. (Source: SWCA)

Figure 21. Interior main stair of subject property. (Source: SWCA)

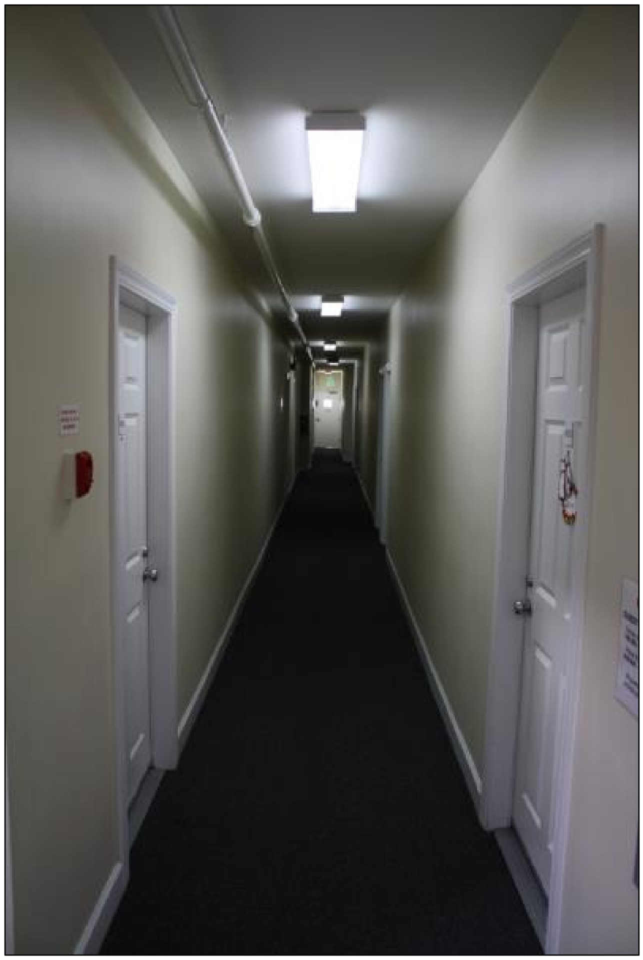


Figure 22. Interior hallway, 1080 Bush Street. (Source: SWCA)

SITE HISTORY

According to available sources, 1080 Bush Street was constructed in 1913/1914 for the Ansonia Apartments Company for a total estimated cost of $75,000. The architect was Maxwell G. Bugbee. While the original building permit was not located for the property, a 1913 *San Francisco Chronicle* article provides information on the property at the time of its construction. According to the *San Francisco Chronicle* article, published 28 June 1913, "Among the best of the large modern apartment buildings now in course of construction in the city is the Ansonia Apartments, upon which work has been commenced."[15] In the Ansonia Apartment building, the article stated, "every modern convenience found in the best apartments will be furnished:"

> A feature of the plan is that all rooms, including the bathrooms, will have outside sun and light, so much in demand in large apartment houses. A very large reception hall is provided, and also a basement entrance for tradesmen and service. The plan calls for 120 rooms, arranged in apartments of two, three and four rooms each, with private halls and bathrooms.[16]

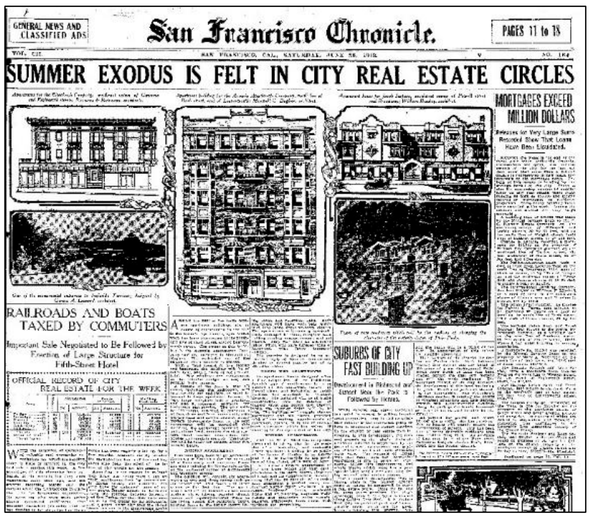
[15] "Apartment Building for the Ansonia Apartments Company," *San Francisco Chronicle*, 28 June 1913.

[16] Ibid.

While early photographs are not available, the 1913 illustration shows a basic window configuration of one-over-one double-hung windows through the two central bays. The two flanking rows of stacked bay windows appear to have had a similar configuration, of single-light, double-hung panes. The only window feature that appears on the 1913 image that is no longer extant (assuming it was constructed) was a multi-light transom centered on each bay window. All windows appear to have been replaced with vinyl windows between 1989 and 1999.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.



GENERAL NEWS AND CLASSIFIED ADS

San Francisco Chronicle.

PAGES 11 to 18

SUMMER EXODUS IS FELT IN CITY REAL ESTATE CIRCLES

MORTGAGES EXCEED MILLION DOLLARS

RAILROADS AND BOATS TAXED BY COMMUTERS

Important Sale Negotiated to Be Followed by Erection of Large Structure for Fifth-Street Hotel

OFFICIAL RECORD OF CITY REAL ESTATE FOR THE WEEK

SUBURBS OF CITY FAST BUILDING UP

Figure 23. When it was constructed in 1913, the Ansonia Apartments (appearing in the center image) at 1080 Bush Street made the front page of the *San Francisco Chronicle*. On file with San Francisco Heritage.

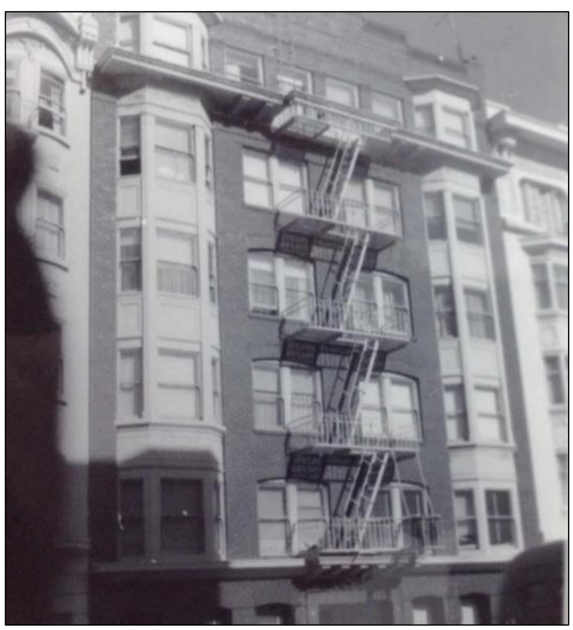


Figure 24. 1968 photo. (Source: Here Today, San Francisco Junior League Survey)

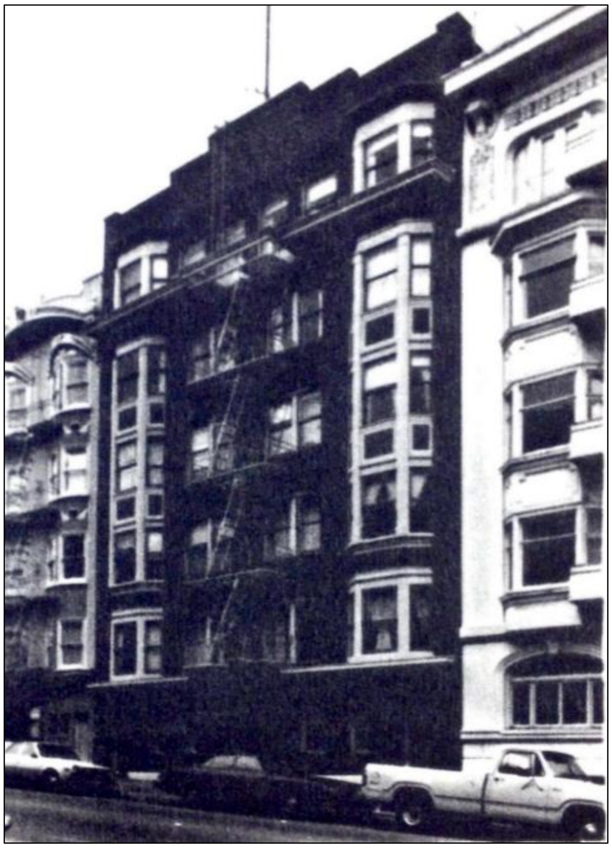


Figure 25. 1978 photo 1080 Bush Street. (Source: San Francisco Architectural Heritage Survey)

Figure 26. 1989 photo of 1080 Bush Street. (Source: SF Planning Department, Anne Bloomfield 1989 Survey.)

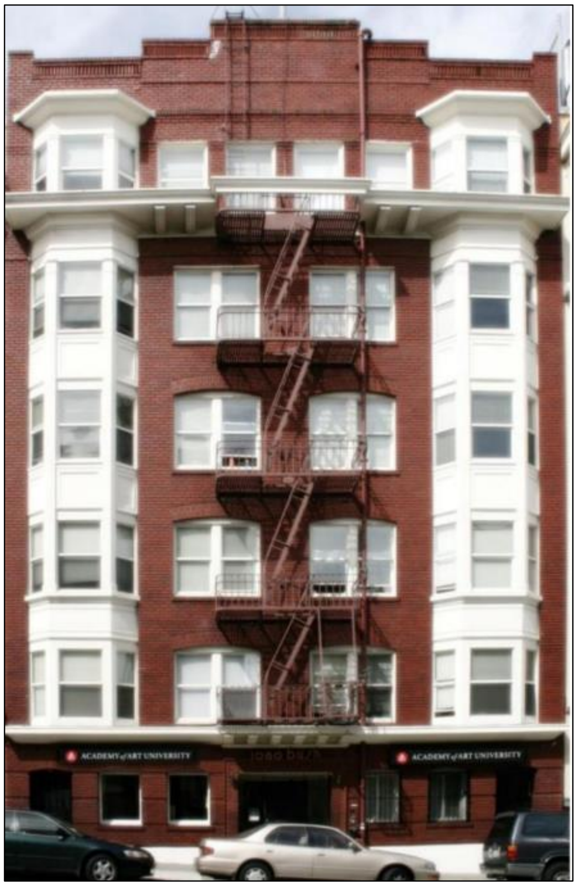


Figure 27. 1999 photo 1080 Bush Street. (Source: Academy of Art University)

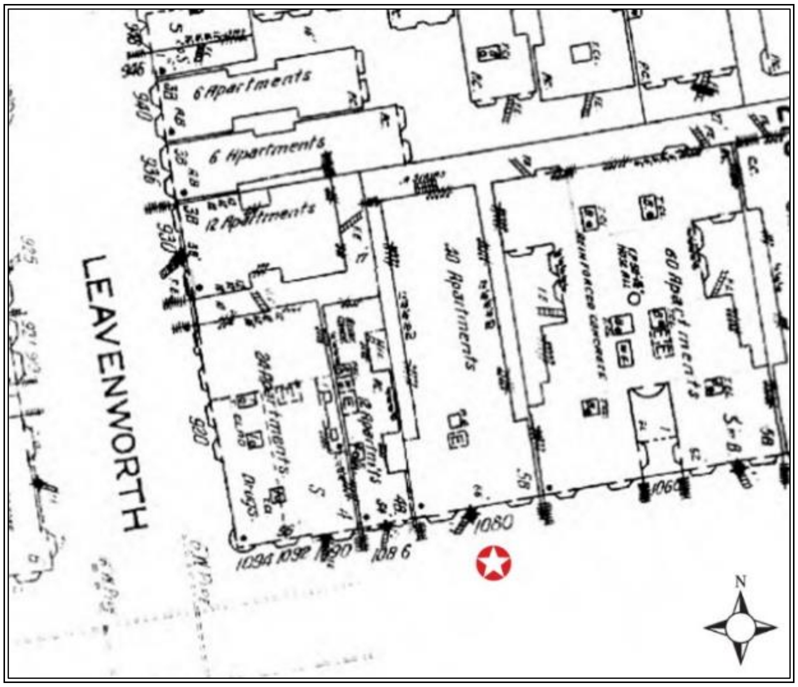


Figure 28. 1948 Sanborn Fire Insurance Map, 1080 Bush Street. (Source: Environmental Data Resources)

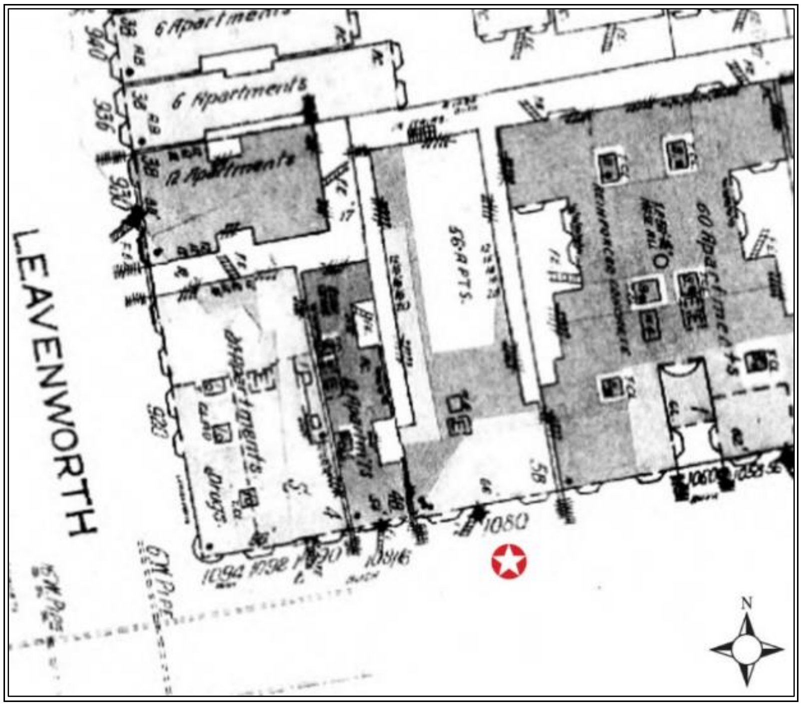


Figure 29. 1974 Sanborn Fire Insurance Map, 1080 Bush Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 1080 BUSH STREET / APN: 0276015

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Mar. 2, 1944	75009 (71264)	G. Rosenberg		$1,200	Close openings on each floor of old … with two layers of flooring. Re-plaster damaged walls and ceiling using good lath fireproof. Repair roof with tar and gravel. Put new garbage shoot inside.
June 5, 1958	210821 (188918)	Mrs. Anne Kurtz		$138	One accordion type patent drop ladder to be installed on existing fire-escape on Front of building.
Sept. 26, 1963	287088 (257819)	Mrs. Anne Kurtz		$2,500	To obtain permit of occupancy; [will need to provide fire safety updates 1 through 6].
Mar. 17, 1971 (Aug. 6, 1971)	(358321)	Ann Alderman		$2,000	As per building inspection report dated 3-17-1971.
Dec. 2, 1971 (Jan. 4, 1972)	(362721)	Coldwell Banker Company		$5,000	Installation of fire sprinkler system.
Jan. 28, 1972 (Feb. 3, 1972)	405830 (363475)			$2,000	Install 5/8” sheetrock, 3 doors and one window in Apt. #202 (fire damage).
July 12, 1973	423269 (379070)	Ann Alderman		$1,000	Comply with complaint #14988.
Aug. 7, 1978	7807982 (439032)	B & F Management Co., Inc.		$1,800	Furnish and install six (6) Hoistway swinging elevator hall doors and locks.
Dec. 10, 1982 (Jan. 18, 1983)	8210119 (496828)	William F. Chin		$2,000	To restore partitions in Room #306 and #406.
Apr. 17, 1984 (May 22, 1984)	8404050 (515777)	William F. Chin	Wing Tar Lee	$5,000	To restore partitions in Room #206 and #506.
May 1, 1986 (May 22, 1986)	8605119 (548500)	Mr. & Mrs. William F. Chin		$12,000	To comply with the Parapet Safety program.
June 12, 1997	971021 (824851)	Bill Benton		$4,600	Install new dry standpipe with hose valves and roof manifold.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 15, 1997	9725130 (839537)	Bill Benton		$1	Revision to Application #9710721.
Aug. 18, 1998 (Oct. 19, 1998)	9816291 (862986)	Shearwater Partners, LLC		$130,000	Seismic upgrading, for compliance - Special procedure, UMB.
Jan. 19, 1999	9901113 (869535)	John Chiatello		$8,000	Remove all lath & plaster in vacant units for new sheetrock.
Feb. 25, 1999	9903639 (872225)	Shearwater Partners, LLC	Zucker + Associates	$250,000	Renovation of most apartments, (not structural work, no envelope change).
Nov. 19, 1999	9924636 (894937)	Scott & Elisa Stevens		$28,000	Remodel kitchen & bath, drywall, trim, paint on #207 and #508.
July 13, 2000 (July 22, 2000)	200007135032 (916694)	AAU	Lori Bockholt Design	$25,000	1st floor tenant improvement. No additional sq. ft., add manager's office unisex restroom communal kitchen storage, trash room, and laundry.
July 20, 2000 (July 22, 2000)	200007205606 (916693)	Elisa Stevens/Wilbur Properties	Lori Bockholt	$40,000	Remodel of existing apartments, room #209, #407, #510, #601.
Sept. 22, 2000	200009221354 (922220)	Elisa Stevens/Wilbur Properties	Lori Bockholt	$1	Revision to application #200007205606: Remodel 4 units, room #207, #407, #510, #601.
Mar. 8, 2001	200103083805 (934217)	AAU	Tom + Aguila	$18,000	Build new sheetrock partitions (1hr. rat.) to enclose area for laundry room, extend gas line, paint. Change orientation of lights to accommodate walls.
Mar. 27, 2001	200103275340 (935722)	AAU	Tom + Aguila	$1	Revision to application #200103083805.
Oct. 27, 2003 (Nov. 24, 2003)	200310278608 (1011727)	AAU		$3,000	Install one new illuminated wall sign (electrical).
Oct. 8, 2004	200410086356 (1038466)	AAU		$12,000	Renew PA#200007135032 to finish work.
June 10, 2010	201006104217 (1213916)	Elisa Stevens Trust/AAU		$500	Removal of horizontal wall sign to right of entry door (no structural work).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Mar. 7, 2011 (Apr. 11, 2011	201103071517 (1235364)	AAU		$10,000	Re-roofing only.
Jan. 5, 2012	201201051752	AAU		$20,000	Unit #205 & #410 remodel of kitchens in kind. Replace counters, cabinets, sinks & faucets.
May 22, 2013	201305207353 (1294380)	AAU		$11,000	To comply with Ordnance 029-13 only; installation of grab bars in SRO at the following locations: (3) per 5th floor = 15+ (1) toilet on 1st floor = 16 total.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

1080 Bush Street is a contributor to the NRHP-listed historic district, Lower Nob Hill Apartment Hotel Historic District and is therefore an historical resource under CEQA.

In addition to being listed on the NRHP, 1080 Bush Street appears eligible for the CRHR under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 earthquake Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences. It is a distinctive example of Classical Revival architecture applied to a multi-family residence.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity.

To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The subject property retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1913 to 1940.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Mid-rise, T-shaped plan, flush with sidewalk
- Symmetrical design composition
- Flat root with no eaves; stepped parapet
- Stacked projecting bay windows, with molded recessed panels beneath and molded fascia and cornice above
- Projecting, tripartite cornice line capping bay windows
- Segmental arched window and door openings
- Brick construction
- Upper and lower cornices with modillions
- Vestibule with marble and tile features
- Original security door on ground level
- Original double-hung wood windows on secondary elevations
- Fire escape (south elevation)

Interior

- Spatial arrangement; double-loaded corridor
- Staircase and railings
- Original Otis elevator

ALTERATION SUMMARY

This section describes known alterations to the property prior to and following AAU's acquisition. Alterations are broken down by primary elevation, secondary elevation, and interior spaces historically accessible to the public (where applicable). In cases where available archival sources did not confirm dates for alterations, these inconclusive changes are listed below.

PRIMARY ELEVATION

Pre-AAU Alterations:

- Accordion-type drop ladder installed to fire escape in 1958 (Permit 210821)
- Primary door replaced by 1982 (SF Heritage Survey)
- Installation of dry standpipe with hose valves and roof manifold in 1997 (Permit 8916291)
- Windows replaced (vinyl) between 1989 and 1999 (AAU, Memo to SWCA, 2/2/2016)
- Modern light fixtures on ground level (AAU, Memo to SWCA, 2/2/2016)
- Security gates at main entry and bars on ground-level windows (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Re-roofing in 2011 (Permit 201103071517)
- Installation of illuminated wall sign in 2003 (Permit 200310278608)
- Western ground-level door replaced in 2013 (AAU, Memo to SWCA, 2/2/2016)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Replacement metal doors on north elevation; awaiting data (AAU, Memo to SWCA, 2/2/2016)
- Replacement windows (aluminum, vinyl sliders) on east and west elevations (AAU, Memo to SWCA, 2/2/2016)
- Security gates on north elevation and some ground-level windows on east and west elevations (AAU, Memo to SWCA, 2/2/2016)

INTERIOR

With the exception of the spatial arrangement and original elevator, the interior has been extensively altered through the complete replacement of doors and elevator doors, and the installation of fluorescent ceiling lights and carpeting throughout. The lobby has also been altered with new laminate floors, sheetrock walls and ceiling, recessed lighting, and exposed painted brick. In addition a manager's office, unisex restroom, and a communal kitchen were added in 2003 (Permits 200007135032)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

1080 BUSH STREET (ES-12)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem/physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Illuminated wall sign	2003	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove sign; repair, patch, and refinish to match existing surfaces; restore segmental arches and brick patterning; match mortar texture and depth to existing
Re-roofing	2011	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	N/A	None
Replacement of western ground-level door on main elevation	2013	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Remove door; replace with period appropriate door to match original, eastern, ground-level door

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Illuminated Wall Sign: The project does not involve a change in use that resulted in significant changes to distinctive materials, features, spaces, and spatial relationships and therefore complies with Rehabilitation Standard No. 1.

Re-roofing: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Door Replacement: The project does not involve a change in use that resulted in significant changes to distinctive materials, features, spaces, and spatial relationships and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 2. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. This subtle decorative element is a character-defining feature of the property. Given the spare nature of the ornamental detailing on the building and its symmetrical design composition, the sign obscures and interrupts the progression of arches, which line the ground story and mark each floor. The use of segmental brick arches across the ground story is a modest but important aesthetic detail. Further, the added sign spans the length of two window openings, which are also considered character defining.

Re-roofing: The project complies with Rehabilitation Standard No. 2. Located on a flat roof behind a raised parapet, the roofing material is not clearly visible from the street of other publically accessible spaces does not contribute to the historic character of the property. The replacement of this material therefore does not negatively affect the distinctive materials that characterize the property.

Door Replacement: The project does not comply with Rehabilitation Standard No. 2. Located on the primary elevation, the original doors contributed to the character of the overall property. The project has therefore not retained or preserved the character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 3. The wall sign introduces a feature that is not reflective or representative of the property's historical use, significance, or appearance.

Re-roofing: The project complies with Rehabilitation Standard No. 3. The project does not introduce conjectural features or elements.

Door Replacement: The project does not comply with Rehabilitation Standard No. 3. The door introduces that is not consistent with the historic character of the property and which creates a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Illuminated Wall Sign: Rehabilitation Standard No. 4 is not applicable to this project.

Re-roofing: Rehabilitation Standard No. 4 is not applicable to this project.

Door Replacement: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 5. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. These character-defining features represent distinctive materials and construction techniques and craftsmanship that characterize the property. Further, the project is likely to have resulted in damage to historic wall materials, through the removal or destruction to character-defining materials as part of the installation of the wall sign.

Re-roofing: The project complies with Rehabilitation Standard No. 5.

Door Replacement: The project does not comply with Rehabilitation Standard No. 5. Original doors are composed of materials, finishes, and construction techniques that characterize the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Illuminated Wall Sign: Rehabilitation Standard No. 6 is not applicable to this project.

Re-roofing: Rehabilitation Standard No. 6 is not applicable to this project.

Door Replacement: The project does not comply with Rehabilitation No. 6. Rather than repair the original door or replace it in kind, the project introduced an element that is not consistent with the character of the property.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Illuminated Wall Sign: Rehabilitation Standard No. 7 is not applicable to this project.

Re-roofing: Rehabilitation Standard No. 7 is not applicable to this project.

Door Replacement: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Illuminated Wall Sign: Rehabilitation Standard No. 8 is not applicable to this project.

Re-roofing: Rehabilitation Standard No. 8 is not applicable to this project.

Door Replacement: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Illuminated Wall Sign: The project does not comply with Rehabilitation Standard No. 9. The illuminated wall sign currently obscures the segmental arched-brick headers above two of the ground-level windows and the easternmost door. Given the spare nature of the building's ornamental program and its symmetrical design, the brick header arches are an important design detail, accenting not just the ground story but each floor. In this way, the sign obscures and interrupts this character-defining feature. Further, the added sign spans the length of two window openings, which are also considered character defining.

Re-roofing: Located on a flat roof behind a raised parapet, the roofing material is not clearly visible and is not considered character defining; the project therefore complies with Rehabilitation Standard No. 9.

Door Replacement: The project does not comply with Rehabilitation Standard No. 9. Although the door is differentiated, it is not compatible with historic materials or features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Illuminated Wall Sign: The project complies with Rehabilitation Standard No. 10. The segmental brick arches are still present behind the sign; if the sign were removed, the essential form and integrity of this character-defining feature would remain intact.

Re-roofing: Because the project did not affect the essential form or integrity of the property, Rehabilitation Standard No. 10 is not applicable.

Door Replacement: The project complies with Rehabilitation Standard No. 10. The door opening was not affected by the project and the current door could be removed and replaced without any impairment to the building.

RECOMMENDATIONS

To facilitate SOIS compliance, the illuminated wall sign should be removed and the original physical appearance and materials of the segmental brick header arches replaced. Any perforations or damage to historic materials should be repaired and surfaces refinished to match existing in materials and appearance.

If a new sign is to be installed, it should be placed in a location that does not obscure character-defining features and installed in a manner that results in minimal damage to historic. In general, the recommended approach for installing signage is to utilize mortar joints or the jamb of a noncontributing building component (rather than character-defining masonry).

AAU indicates the western ground-level door was replaced due to damage in 2013. The replacement door installed by AAU is not consistent with the character of the other service door located at the eastern end of the ground level. A SOIS compliance approach would include the removal of the existing door and replacement with a door that replicates the eastern ground-level door.

1153 BUSH STREET (ES-11)

APN: 0280026

Construction Date: 1911

Architect/Builder: Welsh & Carey

Previous Status: Category A

Previous CHR Status Code: 1D (contributor to designated NRHP historic district)

Date of Past Surveys/Evaluations: 1968, 1976, 1978, 1989, 1991

AAU Acquisition Date: 1998

Current CHR Status Code: 1D (contributor to designated NRHP historic district)

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Originally serving as a doctor's office and multifamily residence, 1153 Bush Street is a three-story brick building constructed in 1911. The building is L-shaped in plan and capped with a flat roof, trimmed along the façade with a Classical Revival cornice with scrolled modillions and applied ornamental detailing. A one-story brick-clad garage occupies the western portion of the lot. The building is set flush to the sidewalk, with an open space at the rear of the property.

With its Classical Revival-inspired style, the building displays a symmetrical design composition and fenestration pattern. On the primary elevation, the focal point of the design is the first-floor entrance, which is marked by a recessed door framed beneath an elaborate entablature, accented with a dentil course and attached partial pilasters. The entrance consists of a wood door with a large glass panel and side lights. A second recessed entry to the basement is located on the western portion of the facade. While the ornamental program of the building is spare, aesthetic effect is achieved through the subtle variations in patterns and profile of the brick sheathing. Brick belt courses and a thin projecting row of bricks frame the window openings on the second and third stories. Serving a keystone-like accents above the third-story windows are two attached plaster emblems.

Figure 30. 1153 Bush Street. (Source: SWCA)

Fenestration generally consists of wood double-hung and fixed-pane windows, as well as vinyl double-hung windows. Security gates have been added in front of the doors and security bars in front of the basement windows.

Figure 31. 1153 Bush Street, primary entrance detail. (Source: SWCA)

Figure 32. 1153 Bush Street, view from the sidewalk highlights the subtle aesthetic effect achieved through brick patterning. (Source: SWCA)

The secondary elevations feature a simplified cornice on the east and west elevations, and shallow brick copping at the eave line on the south elevation. Fenestration patterns on the side elevations mirror those of the façade, with symmetrically arranged, multi-light wood and vinyl double-hung and fixed windows. The building also exhibits stained-glass windows on the side elevation. Metal security bars have been installed over some of the basement windows.

Figure 33. 1153 Bush Street, northern perspective of the rear elevation and yard. (Source: SWCA)

Figure 34. 1153 Bush Street, close up of one of the stained glass windows. (Source: SWCA)

The main entry leads to a lobby, main staircase, and rooms with a number of original, character-defining features. An open dining room with an original paneled ceiling is located off the living room. Contributing interior features include wood door frames and trim, wood paneling and banister, original chandeliers, and an open wood fireplace. Carpet has been installed on the stairs and floors, and nonoriginal fluorescent lights have been added. While the room configuration appears to have been retained on the first floor, some of the upper-floor rooms have been reconfigured.

Figure 35. Interior fireplace of subject property. (Source: SWCA)

Figure 36. Interior of subject property, with contributing, character-defining interior spaces and features. (Source: SWCA)

SITE HISTORY

1153 Bush Street was constructed in 1911 for an estimated cost of $25,000. The three-story building, with basement, was designed by the San Francisco-based architecture firm Welsh & Carey. The firm was established by Thomas J. Welsh (1847-1918), a native of Australia and a reasonably prolific architect in and beyond the San Francisco Bay Area; Welsh also served as the architect for the San Francisco Board of Education.[17]

The building was commissioned by Dr. S.J. Hunkin, an orthopedic surgeon originally from Cornwall, England.[18] Hunkin moved to California in 1884, studying at Cooper Medical College. In 1895, Hunkin married Lota Buchner; after commissioning 1153 Bush Street, he resided and worked in the building, which served as a multifamily dwelling. In 1911, the *San Francisco Chronicle* noted the building's construction:

> Dr. S.J. Hunkin is building a three-story and basement brick residence for himself on Bush street [sic], between Leavenworth and Hyde streets. Welsh & Carey are the architects, and they have designed a highly attractive house of the fire-proof type. The building will contain offices for the owner and a garage. The first floor will be occupied exclusively as offices and reception rooms, and the two upper stories for the residence. Southern gum wood is used for the finish of the reception rooms and other main rooms. The living room occupies the entire front, and has a large open fireplace, with the mural decoration in harmony with the wood finish. Hardwood floors will be laid throughout the house.[19]

Upon Hunkin's death in 1930, the San Francisco Chronicle described him as an orthopedic surgeon who "had built up a world-wide reputation."[20] Following his death, by 1935, the building was occupied through at least the late 1930s by The Samaritan Treatment for Alcoholism, an early alcohol treatment center that addressed "excessive drinking as a disease."[21] A 1935 advertisement for the group's two Bay Area locations, at 1153 Bush Street and in the Richfield Oil Building in Oakland, asserted that "The misery of alcoholism need not be endured."[22] With centers throughout the United States, The Samaritan Treatment for Alcoholism appears to have been popular at the time but also criticized for its promise of offering a 48-hour cure:

> Any treatment that claims to cure alcoholism in 'little more than two days' is a fake. The sobering-up process may not take much more time, but anyone who is familiar with the sprees of an alcohol addict knows very well that sobering up doesn't mean cure… The excessive use of alcohol is a symptom of a deep-rooted emotional maladjustment, involving the entire personality of the drinker. It is absurd to claim that a few days of hocus-pocus will re-make a personality.[23]

By circa 1940 and into subsequent decades, the property appears to have transitioned from a mixed-use office-residential space to solely multifamily residential use.

---

[17] Chase, John, Judith Steen, and Daniel Platt Gregory, *The Sidewalk Companion to Santa Cruz Architecture* (Kestrel Press, 2005).

[18] "Heart Attack Fatal to Dr. S.J. Hunkin," *San Francisco Chronicle*, 12 October 1930, p. 6.

[19] "Future for City Realty Is Full of Promise and Confidence," *San Francisco Chronicle*, 29 July 1911.

[20] "Dr. Hunkin's Rites Held," *San Francisco Chronicle*, 12 October 1930, p. 12.

[21] *Polk's Crocker-Langley San Francisco City Directory*, 1938 (San Francisco, CA: R.L. Polk and Company).

[22] Advertisement, The Samaritan Treatment for Alcoholism, *Indian Valley Record* (Greenville, Plumas County, California), 26 December 1935.

[23] "Questions and Answers," *Health and Hygiene*, October 1938, p. 21.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

Figure 37. 1968 photo of 1153 Bush Street. (Source: Here Today, San Francisco Junior League Survey)

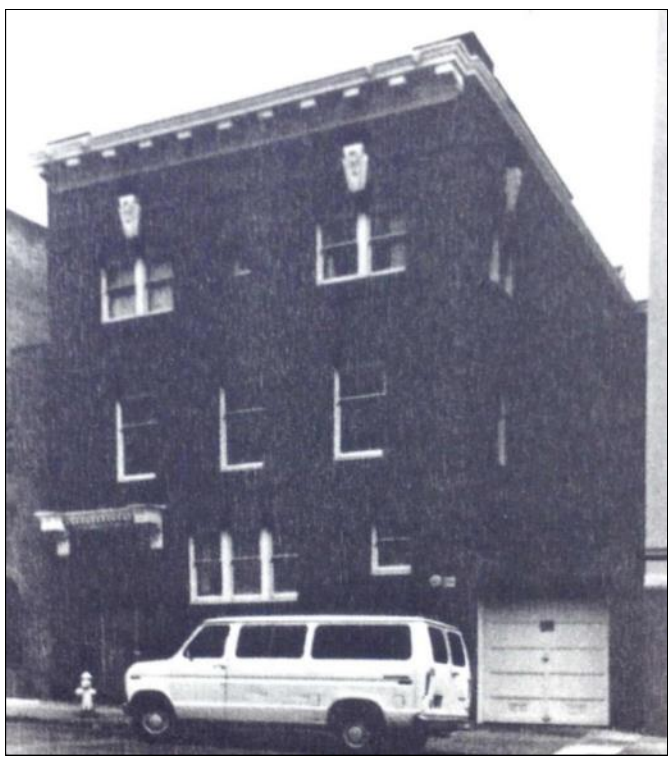


Figure 38. 1978 photo 1153 Bush Street. (Source: San Francisco Architectural Heritage Survey)

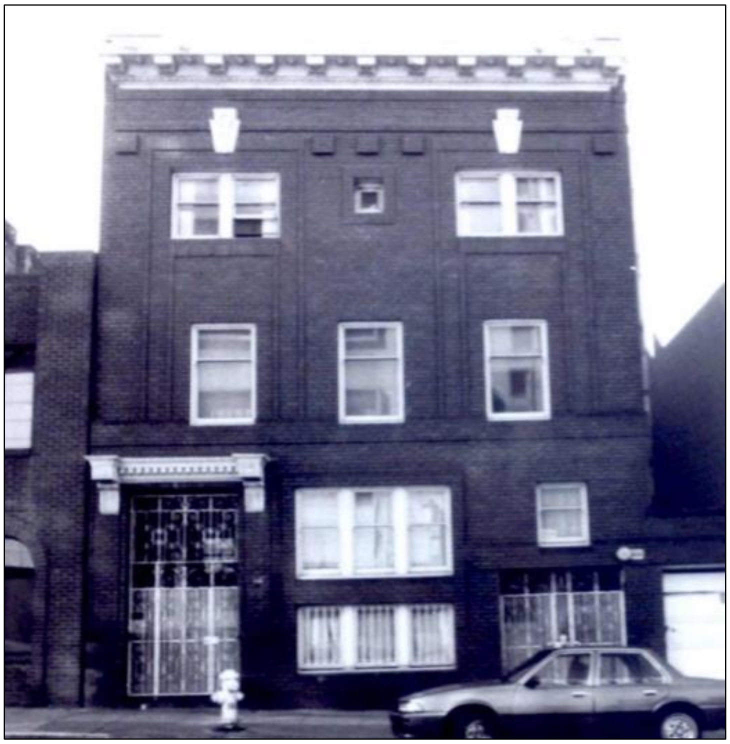


Figure 39. 1989 photo of 1153 Bush Street. (Source: San Francisco Planning Department, Anne Bloomfield 1989 Survey)

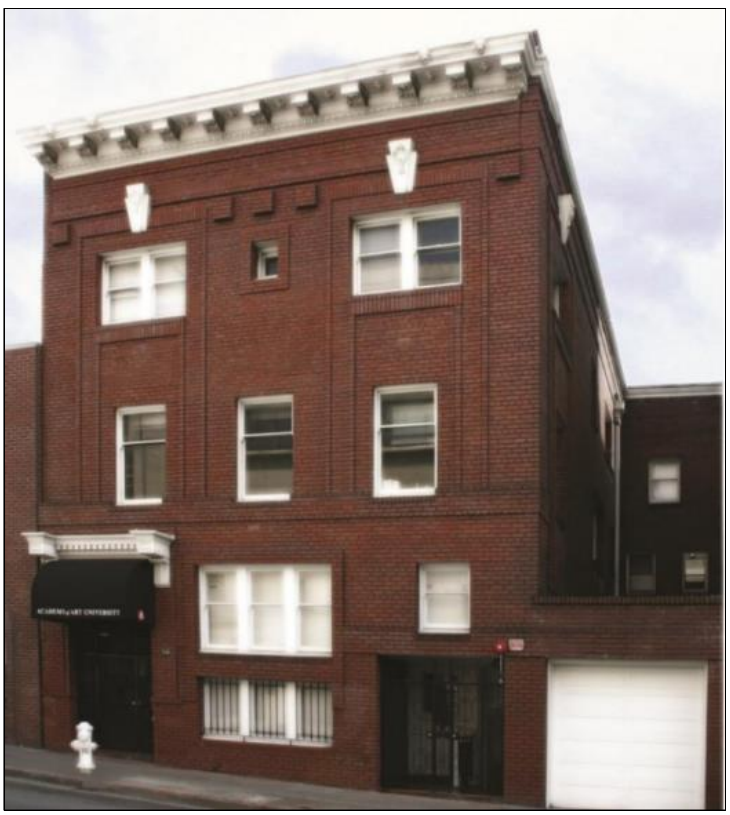


Figure 40. 1998 photo of 1153 Bush Street. (Source: Academy of Art University)

Figure 41. 1153 Bush Street, as shown in the *San Francisco Chronicle*, 29 July 1911. (Source: San Francisco Heritage)

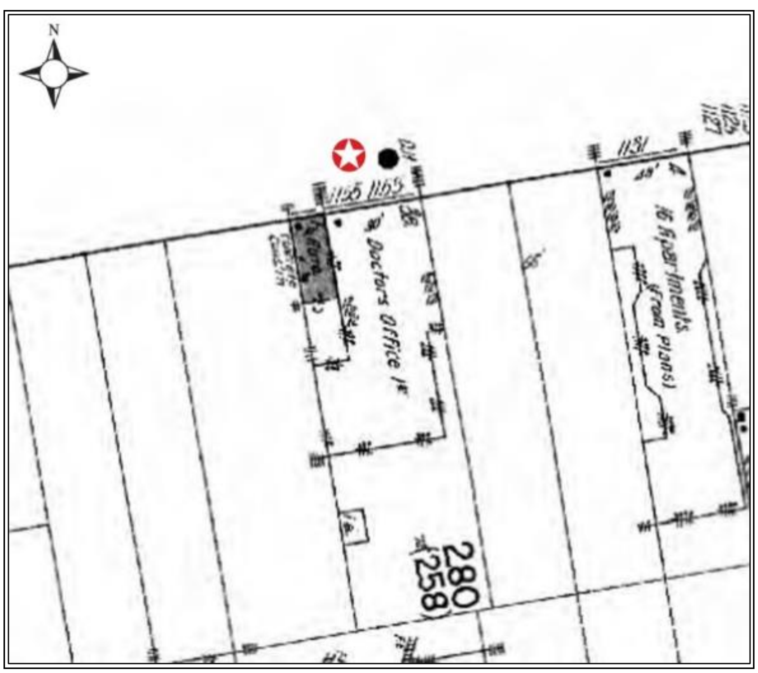


Figure 42. 1913 Sanborn Fire Insurance Map, 1153 Bush Street, when the property still served as a doctor's office. (Source: Environmental Data Resources)

Figure 43. 1938 Aerial Photograph, 1153 Bush Street. (Source: Environmental Data Resources)

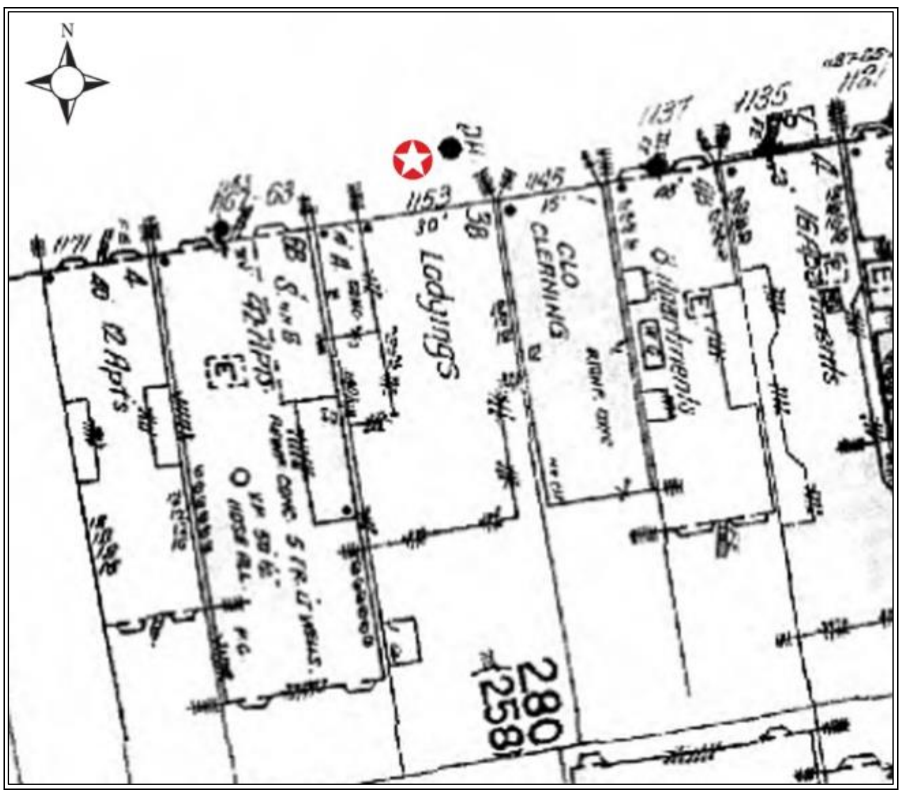


Figure 44. 1948 Sanborn Fire Insurance Map, 1153 Bush Street; by 1948, the Sanborn map indicated the building use as "lodgings." (Source: Environmental Data Resources)

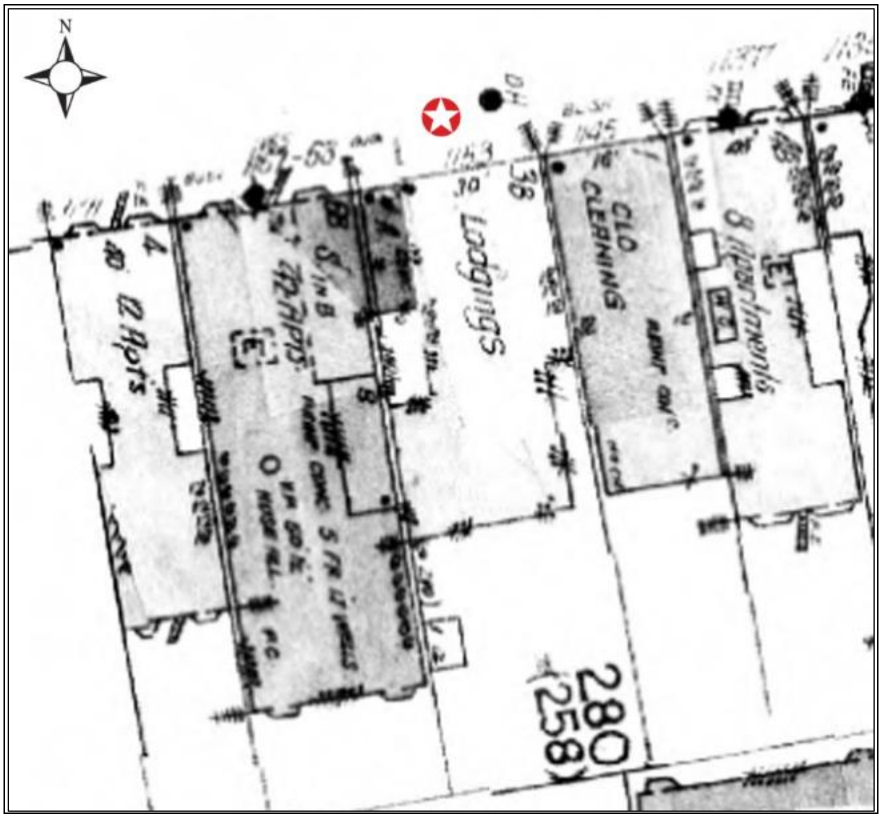


Figure 45. 1974 Sanborn Fire Insurance Map, 1153 Bush Street. (Source: Environmental Data Resources)

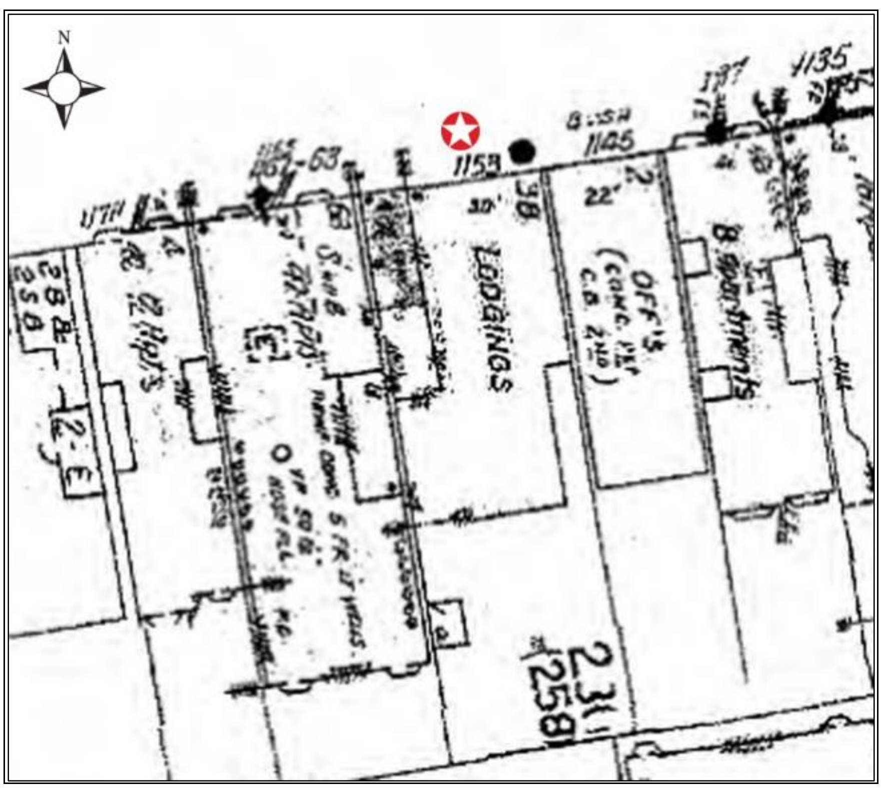


Figure 46. 1999 Sanborn Fire Insurance Map, 1153 Bush Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 1153 BUSH STREET / APN: 0280026

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 14, 1911 (June 24, 1911)	36502	S. J. Hunkin	Welsh & Carey	$25,000	To construct a three-story and basement brick building measuring 42’-6” by 137’-6”
July 16, 1962	26664	Evelyn Tong		$3,500	Put addition toilet. Building to be legalized per dept. of public health check list. 13 guest rooms, 4 room manager’s apt.
Aug. 17, 1973 (Sept. 20, 1973)	425798 (381503)	Evelyn Tong		$1,000	To do necessary work as per Bureau of Building Inspection to legalize bldg. as one apts. and 14 guest rooms
Oct. 29, 1974 (Dec. 2, 1975)	440682 (405776)	Evelyn Tong		$3,000	To conform with property Conservation Dept. report.
Apr. 4, 1979 (May 10, 1979)	7904460 (448582)	International Exchange Carpet Cleaners, Inc.		$1,400	To bring building into full compliance with the provisions of the Municipal Code as required by Division of Apartment and Motel Inspection report.
Sept. 24, 1979 (Oct 24, 1979)	7909647 (453969)	International Exchange Carpet Cleaners, Inc.		$1,500	Remodel basement bath – drawing included.
Aug. 7, 1980 (Aug. 19, 1980)	8007009 (463232)	International Exchange Carpet Cleaners, Inc.		$500	Repair walls and floor in basement to include: concrete slab replacement; hang 2 doors in existing openings; change door openings in two closets; and repair old plaster with sheetrock.
Apr. 27, 1989 (May 24, 1989)	8907039 (614693)	New Education Development System	A + J Design	$12,000	Parapet Reinforcing
May 12, 1998 (July 30, 1998)	9808471 (855823)	New Education Development System Inc.		$1	Bring to code compliance. To indicate existing legal use of building permit application and plans to follow guidance of Mr. Rafael Leopoldo.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 19, 1998 (Sept. 21, 1998)	9816385 (860480)	Elisa Stephens	Dale Meyer Associates	$20,000	Up-date bathrooms (new fixtures, tile, light, etc.) Close some door openings & open some new doors, add a few walls (interior non-bearing) to divide space.
Oct. 3, 2003 (June 3, 2005)	200310036508 (1057212)	AAU	Tom Eliot Fisch	$267,000	Seismic upgrade per UMB Ordinance. Wall anchors, etc.
Nov. 2, 2010	201006305672 (1224932)	Elisa Stephens		$1	To obtain final inspection for work approved under PA# 9816385.
Jan. 24, 2013 (Mar. 4, 2013)	201301248689 (1287646)	AAU		$500	Remove wall sign at ground level (remove signage on all sides).
May 22, 2013	201305207351 (1294381)	AAU		$10,500	To comply with Ord 029-13; installation of grab bars in basement & floors 1 to 3.
May 1, 1989	8907039			$12,000	Parapet Reinforcing.
May 12, 1998	9808471			$1	Bring to code compliance to indicate existing legal use of building.
Aug. 19, 1998	9816385			$20,000	Update bathrooms (new fixtures, tile, lights), close some openings.
Oct. 3, 2003	200310036508			$267,000	UMB Seismic upgrade per UMB ordinance.
Apr. 1, 2008	200804018452			$1,000	Erect a (non-electric) single faced projecting sign.
Apr. 1, 2008	200804018456 (*permit filed but never issued)			$5,001	Install one (non-illuminated) awning.
June 30, 2010	201006305672			$1	To obtain final inspection for work approved under Application # 9816385.
Aug. 17, 2010	201008178987			$3,000	Revision to approved PA #9816385 & respond to Nov #201051135. New handrails & as-built drawings.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 24, 2013	201301248689			$500	Remove wall sign at ground level.
May 20, 2013	201305207351			$10,500	To comply with Ordinance 029-13 only; installation of grab bars in SRO at the following locations: (2) at basement + (4) on 1st floor + (3) on 2nd floor + (6) on 3rd floor = 15 total.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

1153 Bush Street is listed on the NRHP as a contributor to the Lower Nob Hill Apartment Hotel Historic District. As such, it is a historical resource for purposes of CEQA.

The subject property was also evaluated for eligibility for the California Register of Historical Resources (CRHR).

In addition to being listed on the NRHP, 1153 Bush Street is eligible for the CRHR under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 earthquake Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact example of a Classical Revival residence and a contributor to this historic district of multi-family residences.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990).

With few major alterations, the subject property retains integrity and remains eligible as a contributor to the NRHP historic district and as a CRHR-eligible historical resource. The period of significance is 1911 to 1940.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: low-rise, rectilinear volume
- Single-story attached garage
- Flush with sidewalk, open space at rear
- Flat roof with shallow eaves, finished with Classical Revival cornice, modillions and applied ornament
- Brick sheathing, with aesthetic effect achieved through subtle variations in recessed/raised brick patterning, around windows
- Symmetrical fenestration pattern
- One-over-one single and paired double-hung windows
- Primary entrance with Classical Revival-style detailing (entablature and cornice lined with dentil course)
- Stained glass windows on rear elevation
- Raised, board-form concrete foundation on side and rear elevations

Interior

- Spatial arrangement: formal entryway with stairs and residential units located off shared common spaces
- Staircase with wood railings, banister, and ornamental detailing
- Wood wainscoting and wall paneling
- Textured wallpaper
- Wood floors and door surrounds, accented with dentil course
- Paneled ceiling in dining room
- Multi-light and wood-paneled doors
- Built-in cabinets
- Wood and tile fireplace with ornamental detailing

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Security gates and bars added by 1982 (SF Heritage Survey)
- Fixed windows at ground level by 1989 (Bloomfield Survey)

Post-AAU Alterations:

- Canopy at primary entrance in 2008 (Permit 200804018456 [*permit filed but never issued])
- Garage door replaced with a non-original door in 2003 (AAU, Memo to SWCA, 2/2/2016)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Replacement metal fire door on ground level of west elevation
- Three replacement windows (two brown and one white vinyl double-hung windows) on rear (south) elevation

Post-AAU Alterations:

- Backyard was paved with concrete for use as a basketball court in 2004 (AAU, Memo to SWCA, 2/2/2016)
- Security bars on ground level windows on rear (south) and east elevations in 2006 (AAU, Memo to SWCA, 2/2/2016)
- One window partially infilled and others replaced with vinyl windows on secondary elevations behind garage (AAU, Memo to SWCA, 2/2/2016)

INTERIOR

Although the mixed-use doctor's office/multifamily space was converted to strictly multi-family/hotel use by 1939, many of the original character-defining features in the common/shared spaces remain intact as described above. Alterations to the interior are largely confined to the residential rooms and basement, which appears to have had interior rooms added and seismic bracing installed. In addition bathroom upgrades were completed by AAU (Permit 981685)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

1153 BUSH STREET (ES-11)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Canopy	2008	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove canopy & repair/patch materials/features as needed; restore and refinish to match original in materials and appearance
SECONDARY ELEVATION Known/Visible Exterior Alterations												
One window partially infilled; others replaced w/vinyl windows on north elevation behind garage	2003/2005	Yes	No	No	N/A	No	No	No	N/A	No	No	These window are on a secondary elevation and are therefore not

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												visible from the public right-of-way. An SOIS-compliant approach would be replacing extant noncontributing windows with windows matching the originals in size, shape, glazing, framing materials, thickness and profile, overall configuration and operation. Design of replacement windows shall be based on evidence (historic photos, extant historic windows) rather than conjecture.

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Canopy: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships and therefore complies with Rehabilitation Standard No. 1.

Window Infill/Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Canopy: The project does not comply with Rehabilitation Standard No. 2. According to historic photographs, the canopy currently over the principal entrance was not originally present. The canopy covers and partially obscures the Classical Revival-style entrance and ornamental details that are the focal point of the building's design. The entrance is marked by a Classical Revival-style entablature and cornice, lined with a dentil course, and flanked by attached square capitals. Other character-defining features include the primary entrance's large rectangular wall opening, entrance portico, and deeply recessed door. (The door is currently fronted by a nonoriginal security gate.) Character-defining features of the building overall include its symmetrical design composition, decoratively patterned brick, paired and single wood-framed windows, and a roofline spanned by an entablature with molded cornice, accented with dentils.

Because the building's decorative program is relatively minimal, the primary entrance, as well as the prominence of the entrance in the building's design, are all the more important in the building's design. The entrance canopy alters the shape and appearance of the principal entrance and its decorative Classical Revival-style entrance. Therefore, the entrance canopy does not comply with Rehabilitation Standard No. 2.

Window Infill/Replacements: The project does not comply with Rehabilitation Standard No. 2. The infill and installation of vinyl windows on the secondary elevations is not consistent with the distinctive materials of the historic fenestration on the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Canopy: The project does not comply with Rehabilitation Standard No. 3. The canopy introduces an element that is not reflective or representative of the property's historic significance, use, or appearance.

Window Infill/Replacements: The project does not comply with Rehabilitation Standard No. 3. The infill and nonoriginal vinyl windows introduce an element that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Canopy: Rehabilitation Standard No. 4 is not applicable to this project as the canopy was installed after the period of significance (1911-1940).

Window Infill/Replacements: Rehabilitation Standard No. 4 is not applicable to this project

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Canopy: The project does not comply with Rehabilitation Standard No. 5. Mounting brackets are installed directly into the masonry wall of the entryway; this masonry wall is among the distinctive materials, features, and finishes that characterize the property. The project is likely to have resulted in damage to these materials through their removal or destruction with the installation of the canopy.

Window Infill/Replacements: The project as not in compliance with Rehabilitation Standard No. 5 as it resulted in the infill of a window opening, a distinctive feature of the building.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Canopy: Rehabilitation No. 6 is not applicable to this project.

Window Infill/Replacements: The project is not in compliance with Rehabilitation Standard No. 6 as it resulted the installation of incompatible windows rather than the repair of existing.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Canopy: Rehabilitation No. 7 is not applicable to this project.

Window Infill/Replacements: Rehabilitation No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Canopy: Rehabilitation No. 8 is not applicable to this project.

Window Infill/Replacements: Rehabilitation No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Canopy: The project does not comply with Rehabilitation Standard No. 9. According to historic photographs, the canopy currently over the principal entrance was not originally present. The building's symmetrical design composition, decoratively patterned brick sheathing, and prominent, ornamental entrance are all considered character-defining. As it appears today, the entrance canopy alters the shape and appearance of the principal entrance and partially obscures its decorative Classical Revival-style cornice and entablature. In addition, the canopy also negatively affects scale and proportion of the entrance portico, which was designed to be the focal point of the building. Therefore, the addition of the entrance canopy does not comply with Rehabilitation Standard No. 9.

Window Infill/Replacements: The does not comply with Rehabilitation Standard No. 9. The infill and window replacements are not compatible with historic materials and features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Canopy: The project complies with Rehabilitation Standard No. 10. The canopy has not permanently impaired the essential form and integrity of the historic property. The prominent, ornamental entryway is still present behind the canopy. If the canopy were to be removed, the essential form and integrity of the property would remain intact.

Window Infill/Replacements: The project complies with Rehabilitation Standard No. 10. The infill and window replacements has not permanently impaired the essential form and integrity of the historic property. The form, window openings is still present and if removed, the essential form and integrity of the property would remain intact.

.

RECOMMENDATIONS

To facilitate SOIS compliance, the canopy should be removed. Any wall perforations or damage to historic materials should be repaired, patched, and refinished to match existing surfaces in materials and appearance.

The removal and in-filling of windows on secondary elevations does not meet Standards No. 2, 3, 5, 6, or 9. However, these elevations are not visible from the public right of way, and the affected features are considered of secondary character-defining importance. A SOIS-compliant approach would be to remove and replace infill and vinyl windows with period-appropriate windows. Design of replacement windows shall be based on evidence (historic photos, extant historic windows) rather than conjecture.

In addition, field observations noted the presence of deteriorated brick on exterior walls. It is recommended that brick be repaired where possible, replaced in kind where necessary, and repointed with mortar matching the existing in all aspects of appearance (including color, texture, and depth).

58-60 FEDERAL STREET (ES-30)

APN: 3774074

Construction Date: 1911/1912

Architect/Builder/Designer: Perseo Righetti & August G. Headman

Previous Status: Category A

Previous CHR Status Code: 3D (NRHP-eligible historic district contributor); contributor to Article 10 Historic District

Date of Past Surveys/Evaluations: 1978; 2005; 2008; 2009; 2011

AAU Acquisition Date: 2005

Current CHR Status Code: 3D; Article 10 listed

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

Constructed between 1910 and 1912, 58-60 Federal Street was commissioned by the Rincon Warehouse Company. The warehouse is five stories in height and rectangular in plan, with steel-reinforced concrete construction. The property is built out to fill the lot and set flush with the sidewalk.

Utilitarian in design, the building is capped with a flat roof, terminating in a shallow copping along the sixth story. Centered atop the fifth story of the property is a one-story sixth floor. The façade is characterized by an asymmetrical, purpose-driven design, with little evident or extant ornamental detailing on the exterior.

Figure 47. 58-60 Federal Street. (Source: SWCA)

On the primary elevation, the entrance consists of paired glass doors with a single-light transom, deeply recessed within the wall plane. Framing the entrance portico is a Classical Revival-inspired pediment and door surround. (The main entrance, currently located in the north portion of the façade, was originally centered on the façade.) On the primary elevation, access is provided through a series of roll-up doors of various sizes, as well as single and paired doors with simple wood frames. Fenestration consists of a variety of window configurations and types, with multi-light, fixed, and casement steel-frame windows.

Figure 48. 58-60 Federal Street, primary elevation; the original location of the main entrance (now located further south on the façade) was below the lettering reading "60 Federal." (Source: SWCA)

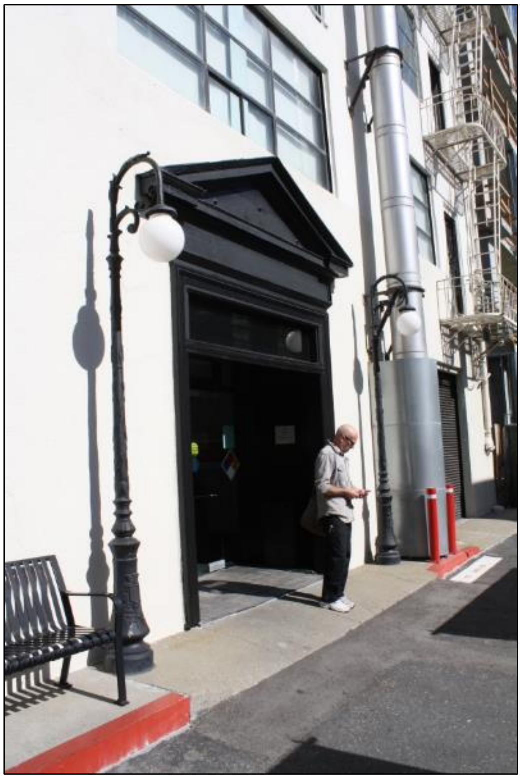


Figure 49. 58-60 Federal Street, detail, main entrance, primary elevation (Source: SWCA)

As with the primary elevation, the northeast elevation exhibits a series of roll-up doors on the first and second stories. Fenestration consists of varying window types, including steel-frame multi-light, fixed, casement, and sliding windows. On the northwest elevation, the overall pattern of window openings is asymmetrical and program-driven. Metal railings have been added in front of some of the larger sliding windows.

Figure 50. 58-60 Federal Street, southwestern perspective of the northeastern elevation. (Source: SWCA)

SITE HISTORY

Constructed between 1910 and 1912, in advance of the 1914 opening of the Panama Canal, 58-60 Federal Street was commissioned by M.J. Hawley of the Rincon Warehouse Company for an estimated cost of $200,000.[24] Designed by Perseo Righetti & August G. Headman, the building was "one of the largest and most costly warehouses in the city" at the time of its construction.[25] The site was particularly promising, given its proximity to both the harbor and adjacent rail lines, an advantage that had become "recognized within the last two weeks by capitalists, who bought two valuable holdings in the same warehouse districts."[26] The building was originally occupied by Weston Basket and Barrel Company, which utilized the space for offices, storage, and manufacturing operations.

The cohesive, industrial character of the adjacent area reflects "the development of warehouses over a 120-year period along the southern waterfront" of San Francisco.[27]

> The interdependence of architecture and history can be seen from a look at the evolution of warehouse forms along the southern waterfront. Unlike most other areas of the San Francisco waterfront, the South End district contains an extraordinary concentration of buildings from almost every period of San Francisco's maritime history. Several street fronts…are characterized by solid walls of brick and reinforced concrete warehouses. With this harmony of scale and materials, the

[24] *San Francisco Chronicle*, 1 October 1910.

[25] *San Francisco Chronicle*, 1 October 1910.

[26] *San Francisco Chronicle*, 1 October 1910.

[27] San Francisco Planning Code, Article 10, Appendix I, South End Historic District.

South End Historic District is clearly a visually recognizable place. …The buildings of the South End Historic District represent a rich and varied cross-section of the prominent local architects and builders of the period.[28]

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

Figure 51. June 1980 field survey photo, 58-60 Federal Street. Shows the original location and configuration of entrance. (Source: San Francisco Heritage)

[28] San Francisco Planning Code, Article 10, Appendix I, South End Historic District.

Figure 52. 2005 58-60 Federal Street. (Source: Academy of Art University)

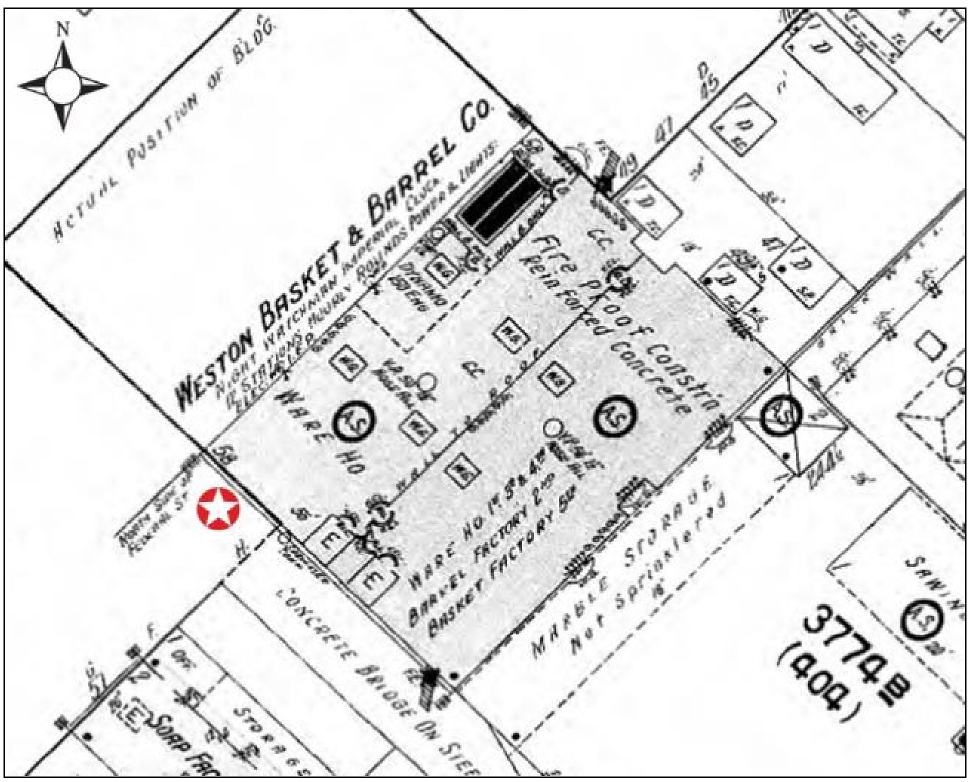


Figure 53. 1913 Sanborn Fire Insurance Map, 58-60 Federal Street, Weston Basket & Barrel Company. (Source: Environmental Data Resources)

Figure 54. 1931 Aerial Photograph, 58-60 Federal Street. (Source: Environmental Data Resources)

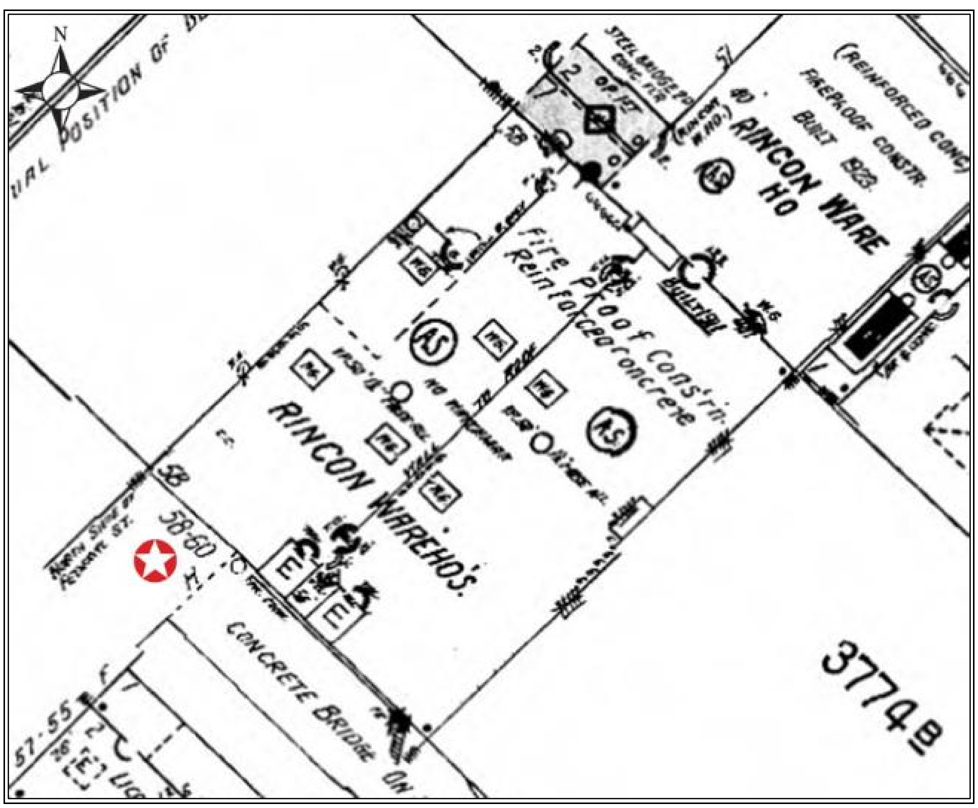


Figure 55. 1949 Sanborn Fire Insurance Map, 58-60 Federal Street. (Source: Environmental Data Resources)

Figure 56. 1970 Sanborn Fire Insurance Map, 58-60 Federal Street. (Source: Environmental Data Resources)

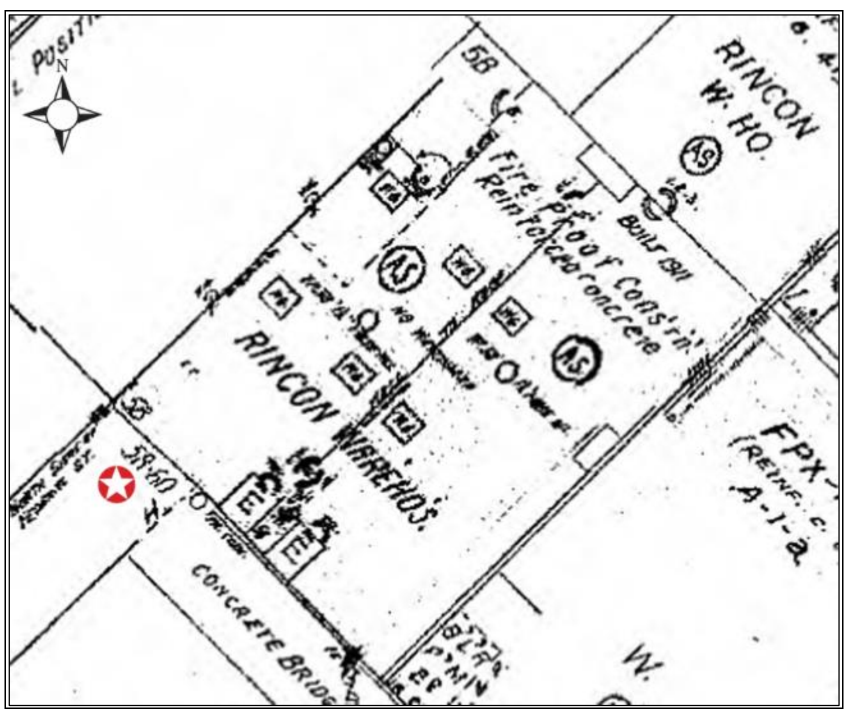


Figure 57. 1999 Sanborn Fire Insurance Map, 58-60 Federal Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 58-60 FEDERAL STREET / APN: 3774074

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 13, 1910 (Aug. 24, 1910)	31288	Rincon Warehouse Co.	Righetti + Headman	$116,500	To construct a warehouse and factory with reinforced concrete measuring 137'-6" by 115' and 82' height.
Aug. 1, 1947 (Sept. 22, 1947)	99206 [Note: permit was withdrawn, no issue permit #]	Baldwin Piano Company		$1,900	Interior alterations. [Permit was withdrawn].
Nov. 15, 1965 (Dec. 6, 1965)	322725 (288608)	R. K. Duke		$1,000	Cut hole in floor slab for chute.
Dec. 4, 1969 (Dec. 22, 1969)	377927 (359446)	Maison Mendessolle		$1,500	Add wall approximately 40 ft. of new partition near elevator.
Apr. 26, 1985 (Jun. 19, 1985)	8504369 (532678)	Jack Dane	David Rivera Designs	$15,000	Build non-bearing wall with metal studs and 5/8" sheetrock.
May 14, 1985	8505048 (531346)	John Chung		$1,000	Demolition of non-bearing partition walls.
June 12, 1985 (Oct. 15, 1985)	8506167 (538050)	Pacific Heights Development Co.	Corlett, Skaer and Devots	$30,000	Improve existing parking to meet code, paint, and electrical. Construct 1 ½ hour communications opening with adjacent existing parking at 51 Federal.
July 19, 1985	8507693 (536794)	CRM of San Francisco, C. Mickelsen	M.C. Henker	$15,000	Replacement of seven (7) vertical side wood gates with center opening.
Oct. 23, 1985 (Dec. 31, 1985)	8512040 (541608)	Carsten Michelson /Aira Financial Corporation	Mike Sands	$20,000	Removal of partition walls, installation of new partition walls. Removal of east fire escape, install new fire exit doors at east stairway. Install new ADA restrooms and upgrade existing elevator for ADA accessibility.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 31, 1985	8512411 (540047)	Carsten Michelson		$2,500	Remove non-bearing wood walls.
Nov. 4, 1985	8512503 (541610)	CSM Reality		$5,200	Replacing windows same size, just updating window sash (new aluminum) and reseal glass framed building. (See permit for more info.)
Jan. 9, 1986	8600336 (542582)	Carsten Michelson/Aire Financial Corp.	Mike Sands	$10,000	Install new partition walls, new ADA restroom. Upgrade existing restrooms. Install new entry doors, replace existing, and install new windows.
Feb. 19, 1986	8601845 (543824	Carsten Michelson		$1,000	Repair fire exit door to fire escape, repair window.
Sept. 17, 1986	8611432 (559621)	CRM		$32,000	Build non-structural works approximately 10‘-8” in height, 3 5/8” studs. Lighting – power track from ceiling.
Sept. 22, 1986	8611635 (556103)	Carsten Michelson		$10,000	Non-structural. Separation walls with metal studs, type & rock.
Feb. 2, 1987	8701436 (563645)	Carsten Michelson	Blair Spangler Designs	$28,000	Build non-bearing partition walls on 5th floor. Add two bathrooms. New light on ceiling, outlets, switches.
May 16, 1988	8806385 (595411)	Carsten Michelson	Tom Ziv	$9,800	Add interior window and doors, remove walls as required.
July 29, 1988	8810744 (595161)	Nielsen Construction Co. (lessee)		$2,350	Automatic sprinklers for toilet rooms on levels 1st and 2nd and corridor on level 1st
Oct. 11, 1989	8919319 (635450)	S. P. Telecom (lessee)	Sam H. Robinson	$280,000	Provide interior finishes (flooring, walls, suspended ceiling). And fluorescent lighting and new air conditioning.
Dec. 19, 1989	8924909 (632311)	S. P. Telecom (lessee)		$25,700	Provide and install a Fire Suppression system.
May 3, 1990	9008593 (643424)	S. P. Telecom (lessee)	Sam H. Robinson	$14,500	Fire sprinkler modification on 3rd floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 25, 1994	9413663 (752982)	Aire Financial Corp.		$1,200	Replace existing door damaged due to break-in, repair and stucco. Provide level landing 44” x 60” at door swings, reconstruct service ramp.
July 15, 1997 (July 31, 1997)	9713078 (827929)	Geonet		$250,000	CTI-1 ground floor EL ME
July 16, 1997 (Sept. 12, 1997)	9713152 (831767)	Geonet Communications (lessee)		$175,000	New electrical service. Restroom upgrade – access and air conditioning. CTI 2 EL ME 1st floor.
Oct. 2, 1997	9719574 (833676)	Aire Financial		$70,504	Re-roofing. Tear off existing roof and install Manville 4-ply with 28 lb. base sheet.
Sept. 9, 1998	9817963 [Note: this permit was Withdrawn]			$50,000	[Note: this permit was Withdrawn] Demo interior floor coverings, gypsum board wall, sprinkler.
Feb. 22, 1999 (Feb. 23, 1999)	9903462 (872060)	WTCI (lessee)		$13,000	Preaction & alarm & detection at tele/comm room.
Oct. 12, 1999	9921559			$1,300	Erect a single faced (non-electric) wall sign.
Nov. 1, 1999 (Dec. 2, 1999)	9923277 (896008)	Qwast (lessee)		$8,000	Install steel frame to support batteries.
Dec. 14, 1999	9926274 (897321)	Qwast Communications (lessee)	James M. Nolan	$1,000	Revision to PA #9923277
Jan. 11, 2000 (Mar. 11, 2000)	20000111794 (904278)	Qwast Communications	Ken Kamp / KDC Architects	$275,000	Expand telecommunications facility, upgrade elect, replace HVAC, install generator, ADA compliance upgrades.
Jan. 20, 2000 (Mar. 11, 2000)	20000120491 (904292)	CM/Federal Limited Partnership	Nishkian Menninger	$1,200,000	Voluntary reinforcement of floor slabs, columns and footings. Electrical emergency generators and ADA compliant restrooms.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					Corridor access to stairs, enclosure of freight elevator shaft.
Feb. 26, 2000 (Mar. 1, 2000)	200002262886 (903438)	CM/Federal Limited Partnership	Nishkian Menninger	$35,000	Soft demo exploration demo remove finish, prepare site for seismic upgrade.
Feb. 26, 2000 (June 24, 2000)	200002262888 (914187)	CM/Federal Limited Partnership	Nishkian Menninger	$95,000	Structural work only - install concrete pad, ceiling wall for transformer vault & switchgear room.
May 25, 2000 (Aug. 7, 2000)	200005251059 (917987)	Qwast Communications	Ken Kamp / KDC Architects	$13,000	Relocated generator from garage exit to bay south/added HVAC support frames to rooftop. Relocate duct work. Added 150 sq. ft. office at col line 7/8 & E/D.
June 14, 2000 (July 25, 2000)	200006142595 (916783)	Kirk Miller Affiliates	Fisher Friedman Associates	$5,000	Revise corridor in basement level.
July 7, 2000 (Aug. 24, 2000)	200007074550 (919635)	Qwast Communications (lessee)		$22,000	Preaction detection/actuation system, Vesda early warning smoke detection system at 3rd floor only.
July 18, 2000	200007185398 (916178)	CM/Federal Limited Partnership	Fisher Friedman	$1,000	Remove concrete stair, concrete wall & door from 1st floor to 2nd floor in northwest corner of build-1st floor.
July 31, 2000 (Aug. 7, 2000)	200008016641 (918026)	Qwast Communications		$17,761	Alteration to fire sprinkler system, 3rd floor-tie in wet system to preaction system.
Jan. 12, 2001 (Feb. 26, 2001)	200101129728 (933284)	Moon Studio (lessee)	F. Lee Moulton Architecture	$58,000	Demolition of non-bearing partitions; new entry to meet ADA requirements (see permit for more details).
Feb. 16, 2001	200102162395 (932796)	CM/Federal Limited Partnership		$182,750	Tie in to existing fire sprinkler sys; new underground new backflow preventer, 517 new sprinklers sub basement1/F.
May 31, 2001 (June 14, 2001)	200105310392 (941880)	CM/Federal Limited Partnership	American Mechanical Services (design).	$200,000	Install shell HVAC equipment for future tie-in. Install water source HEAR pump, exhaust/supply system.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 15, 2001	20010615156 (941942)	CM/Federal Limited Partnership	American Mechanical Services (design).	$1	Installing an outside air fan to serve a portion of the basement & subbasement hallways and eliminate.
July 3, 2001 (Aug. 9, 2001)	200107032958 (945895)	Band with Crossover	F. Lee Moulton Architecture	$228,000	New telecommunications – private server room ups/electrical room in basement.
July 11, 2001	200107113434 (943724)	UFO (lessee)		$8,500	Condensate piping, OSA for two (2) computer room units, equipment provide install by others - Ref. 2000/01/20/49.
Sept. 3, 2002	200209035437 (975424)	Preferred Bank		$190,000	Renew App #20000/20491 to complete remaining work.
Sept. 10, 2001	200109107889 (948150)	CM/Federal Limited Partnership		$1	Installation of addressable fire alarm control to interior sprinkler system. Addendum to PA # 20000120491S.
Jan. 23, 2003	200301235724 (985568)	60 Federal LLC.		$14,000	Fire alarm with monitoring; with horn strobes, smoke detectors, heat detectors, water flow, and pull stations.
Feb. 21, 2003	200302217971	Preferred Bank	Nishkian Menninger	$125,000	New elevator, pit beams slab and pit walls mechanical ventilation under separate permit smoke.
May 20, 2003 (May 27, 2003)	200305215168 (995486)	Preferred Bank	Tuan & Robinson	$25,000	Provide emergency slope repair. Ref App # 20000120491.
Apr. 14, 2006	200604148976 (1083933)	AAU	Tom Elliot Fisch	$4,000	Comply with NOV#200666413. Drawing to document as built condition at the request of field inspector, 20 L.F. of wall & two new doorways. Two new refrigerator and new furnace.
June 10, 2010	201006033729 (1213917)	AAU		$1,000	Removal of painted wall signs (3 logo signs) on garage doors.
June 10, 2010	201006033733 (1213918)	AAU		$1,000	Removal of one (1) painted logo sign per attachment.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 8, 2010	201006084047			$2,000	To erect (non-electric) wall, painted wall.
June 8, 2010	201006084048			$2,000	To erect (non-electric) wall, painted wall.
Mar. 9, 2011	201103091746			$325,000	Life safety upgrades. New stairway, 5th floor steps and ADA ramp. 3rd floor steps. Alterations to modular partitions (moveable partitions, non-permanent).
June 5, 2012	201108152452 (1266162)	AAU		$3,000	To comply with NOV#201054769 to correct wooden step risers in room #550 & #400 to provide seismic restraint to movable partitions (interior work only).
Nov. 13, 2012	20121113424			$50,000	This permit is for a change of use from industrial to post-secondary education institution.
Jan. 24, 2013	201301248671 (1287701)	AAU		$500	Remove west facing frontage sign. Remove south facing frontage signage at roof level.
Apr. 1, 2013	201303011305 (1297870)	AAU		$83,268	Install a new notifier IFS-320 intelligent, addressable Fire Alarm system, install annunciator at main entrance.
July 15, 2014	201406138388 (1330228)	60 Federal LLC.		$150,000	Long term vertical support of existing structure & temp lateral supports of retained soil for adjacent new construction by means of concrete piers.
Dec. 1, 2014	201412012705			$1,000	Remove all fire sprinklers from the elevator machine room and the top of the passenger elevator hoistway.
Mar. 19, 2015	201503191393			$2,000	As built changes reference PA#201303011305.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

Known as the Rincon Warehouse, this industrial property exemplifies the development of the San Francisco waterfront in the mid- to late nineteenth and early twentieth century. On the basis of this association, the property is a contributor to Article 10-designated South End Historic District. The district's period of significance, 1867 to 1935, marks the era when "the waterfront became a vital part of the City's and nation's maritime commerce. The buildings of the South End Historic District represent a rich and varied cross-section of the prominent local architects and builders of the period."

In addition, the subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR). The property at 58-60 Federal Street (as well as the cohesive grouping of adjacent waterfront-related properties) appear eligible for the CRHR under Criterion 1, for their exemplification of the development of the San Francisco waterfront between 1867 and 1935. The property also appears eligible for the CRHR under Criterion 3, as an intact warehouse within the larger historic district of waterfront-related properties.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The subject property retains integrity and remains eligible as a contributor to the NRHP- and CRHR-eligible historic district. The period of significance is 1912 to 1935.

CHARACTER-DEFINING FEATURES SUMMARY

- Steel-reinforced concrete construction
- Utilitarian, program-driven design
- Five-story massing, with centered one-story pop-up on roof; one- and two-story wings
- Bands of industrial sash, steel-frame windows with no ornamental detailing, slightly recessed in wall plane
- Door surround with Classical Revival-inspired pediment on ground-floor of west elevation
- Roll-up bay (former elevator) door openings on ground floor
- Original elevator door on west elevation
- Ghost sign reading "Weston" on central upper bay

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Roll-up metal doors replaced (historic photographs)
- Railings added in front of windows (by 1981; source, San Francisco Heritage Survey photo)
- New fire exit doors, 1985 (Permit 8512040)
- Windows replaced,1985 (Permit 8512503)
- Fire exit door and window at fire escape repaired, 1986 (Permit 8601845)
- Main pedestrian entrance, along with ornamental pediment and detailing, was moved southward post-1980 (source, 1980 survey photo); building permits and photographic evidence suggest this change occurred during major remodel/upgrades in 1985/1986
- Reroofing,1997 (Permit 9719574)
- HVAC relocated to rooftop, 2000 (Permit 200005251059)
- Infill of elevator door/former main lobby on the ground floor (historic photographs)

Post-AAU Alterations:

- Security cameras added

Dates inconclusive or awaiting further data:

- Installation of glass door on main entry (AAU, Memo to SWCA, 2/2/2016)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Windows replaced (1985/1986)

Dates inconclusive or awaiting further data:

- Installation of glass door on main entry (AAU, Memo to SWCA, 2/2/2016)
- Metal doors added on ground-level; metal roll-up door and ventilation grate located on second level (AAU, Memo to SWCA, 2/2/2016)
- Railing added along roof line of east elevation; HVAC units added on east elevation (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

- Installation of life safety upgrades in 2011 (Permit 201103091746)
- Correction of wooden step risers in two rooms in 2011 (Permit 201108152451)
- Installation of a new fire sprinkler and alarm system in 2013-3014 (Permit 201303011305 and 201408133692)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

58-60 FEDERAL STREET (ES-30)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Cameras	Post-2005	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Installation of glass door at main entry	Unknown	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Should it be shown that AAU replaced original historic fabric with the nonoriginal glass door, it is recommended the original materials and appearance be restored, based on pictorial or material evidence.

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

RECOMMENDATIONS

The project at 58-60 Federal Street complies with the SOIS, and no project modifications are recommended at this time.

Should it be shown that AAU removed original materials at the main entry, it is recommended that extant noncontributing door be replaced with a door matching the original in size, shape, materials, and overall configuration. Design of replacement of the door shall be based on evidence (historic photos, extant historic windows) rather than conjecture.

1727 LOMBARD STREET (ES-3)

APN: 0506036

Construction Date: 1953 (eastern building); 1960 (western and southern buildings)

Architect/Builder/Designer: Commercial Construction Company, 1953 building; L.H. Skidmore (Skidmore & McWilliams), 1960 building; Ira S. Kessey, engineer

Previous Status: Category B

Previous CHR Status Code: N/A

Past Surveys/Evaluations: N/A

AAU Acquisition Date: 2007

Current CHR Status Code: 3CD (contributor to an eligible CRHR thematic historic district)

Applicable Criteria: 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Pending confirmation from AAU (windows replaced by 2007, the year AAU acquired the property)

Summary of Evaluation Results: Constructed in 1953 and 1960, the Star Motel appears eligible for the CRHR under Criteria 1 and 3, as a contributor to a discontiguous thematic historic district of motor-court motels along the Lombard Street corridor. The Star Motel and the thematic historic district reflect a noteworthy mid-century shift in the character of Lombard Street, catalyzed by the construction of the Golden Gate Bridge in 1937 and subsequent 1941 redevelopment of Lombard Street. During this era, in a relatively short period of time, portions of Lombard Street became one of San Francisco's principal thoroughfares for traffic heading to and from the Golden Gate Bridge. This pattern of development, coupled with ongoing, postwar redevelopment of the Marina, brought a dramatic increase in traffic and tourism to the area. This triggered both the need and demand for traveler- and car-friendly motels along the corridor. This significant pattern of development had a direct and still discernible effect on the character of an extended swath of Lombard Street, as seen in its concentration of motor-court motels.

1727 Lombard Street embodies the distinctive characteristics of a unique type and period of architecture in San Francisco: mid-century-era motor-court motels. The Star Motel exhibits many of the character-defining features of motor-court motels constructed in the city during this period: U- and L-shaped wings surrounding a central motor court; two-story massing; open galleries and stairs facing motor court, with rooms opening off galleries; deep, overhanging roof eaves over walkways; period details, including brick adobe walls; and a neon blade sign. The building also exhibits typical alterations present in many historic motels across San Francisco: replacement windows; replacement railings at galleries; modified paint scheme; security fencing; and altered signage. However, in spite of these alterations, the property retains features important at a district level, such as original massing, configuration, and central motor court.

Complete Historic Resource Evaluations (HREs) for Category B properties (including 1727 Lombard Street) are presented in the accompanying appendix for historic resources.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Addition of a six-inch-high neon sign reading “PHONES” to existing double-face, vertical blade sign, 1954 (Permit 182162)
- Addition of 26 new living quarters in two connected buildings. Proposed use lists: motel and apartments, 1960 (Permit 231081)
- Original decorative hand-railing on second-floor balcony removed and replaced (no permit; photograph from September 2007 shows replacement railings in place and with signs of weathering as of 2007)
- Addition of west and south buildings in 1960 (Permit 231081)
- Neon pole sign moved west 30 feet to current location in 1960 (Permit 211786)
- Removal of 2x3 decorative framing on south side of building (building location unknown), 1976 (Permit 407759)
- Alteration of vertical blade sign; neon tubing replaced, letters reading “Star & TV” removed, 1992 (Permit 694187)
- Raised concrete and added 12’x48” wide (unknown) outside building, 2001 (Permit 952225)
- ADA-compliance project, including alterations to rooms, parking area, lobby counter, and night drop, 2003 (Permit 989983)
- Alteration to guest registration counter, 2004 (Permit 014270)
- Vinyl window replacements installed prior to 2007 (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security gates and garage doors added in 2008 (Permit 1162593)

SECONDARY ELEVATION

Pre-AAU Alterations:

- Western building reroofed with fiberglass ply sheets in 1989 (Permit 628971)
- Vinyl window replacements installed prior to 2007 (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security gates and garage doors added in 2008 (Permit 1162593)

INTERIORS

In terms of spaces that were publicly accessible, the lobby of the motel is a small, informal space that has been altered through the installation of a new counter and night-drop window, which were added for ADA compliance in 2003 (Permit 989983).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

1727 LOMBARD STREET (ES-3)

This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Fencing and Gates	2008	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

77-79 NEW MONTGOMERY (ES-27)

APN: 3707014

Construction Date: 1913/1920

Architect/Builder/Designer (if known): Sylvan Schnaittacher (1913); Mel I. Schwartz (1920); Gardner A. Dailey (entrance remodel, 1960)

Previous Status: Category A

Previous CHR Status Code: 3CB (CRHR eligible individually and as contributor to historic district); Article 11 Conservation District, Category I property

Date of Past Surveys/Evaluations: 1978; 2002; 2012

Current CHR Status Code: 3CB; Article 11 Conservation District, Category I

AAU Acquisition Date: 1992

Applicable Criteria: 1 and 3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Exhibiting a Renaissance Revival-influenced style, 77-79 New Montgomery Street is a five-story commercial building in the Article 11-designated New Montgomery-Mission-Second Street Conservation District. Spanning eight bays on New Montgomery Street and six on Mission Street, the building displays a symmetrical design composition, with continuous bands of windows, separated by recessed spandrel panels accented with applied ornament. The building is nearly square in plan and set flush to the sidewalk, on a flat lot. The primary elevation faces New Montgomery Street, with secondary elevations fronting Mission Street and Jesse Street. The building is capped with a flat roof, terminating in a stepped cornice.

Figure 58. 77-79 New Montgomery Street. (Source: SWCA)

On the primary (New Montgomery Street) elevation, the first floor features a deeply recessed main entry, trimmed with marble walls and flooring and unadorned, paired glass doors and transom windows, set flush with the floor. This entrance represents a 1960 remodel carried out by renowned San Francisco architect Gardner A. Dailey for Allied Properties. (In a career spanning over 40 years, from the 1920s until his death in 1967, Dailey designed and completed numerous celebrated and award-winning commissions throughout the Bay Area.)

Flanking the main entry are large storefront windows, sheltered beneath slim projecting awnings. Dividing the second and third floors is a prominent belt course, which appears to mark the original 1913 construction of the first two stories, with the upper three stories added in 1920. Encircling the building are wood double-hung windows, slightly recessed in the wall plane. The fourth story windows are articulated with segmental arched openings and keystone accents. The secondary elevations are virtually identical to the primary elevation, which the exception of in-filled openings and a roll-up door installed on the eastern portion of the lot, on Jesse Street.

Figure 59. 77-79 New Montgomery Street, detail, storefronts on the first story. (Source: SWCA)

Figure 60. 77-79 New Montgomery Street, detail, principal entrance. This entrance represents a 1960 remodel carried out by renowned San Francisco architect Gardner A. Dailey for Allied Properties. (Source: SWCA)

Figure 61. 77-79 New Montgomery Street, secondary elevation along Jesse Street. (Source: SWCA)

Figure 62. 77-79 New Montgomery Street, detail, window and spandrel ornament. (Source: SWCA)

The entrance leads to a rectangular lobby with a marble floor. Three elevator bays stand opposite the main entry; the elevators appear to date to the Dailey remodel in 1960. The lobby appears to retain features from both the original interior as well as subsequent remodeling, with updated features combined with remnants of the original lobby, including a chandelier, intact crown molding, and Classic Revival-inspired decorative features.

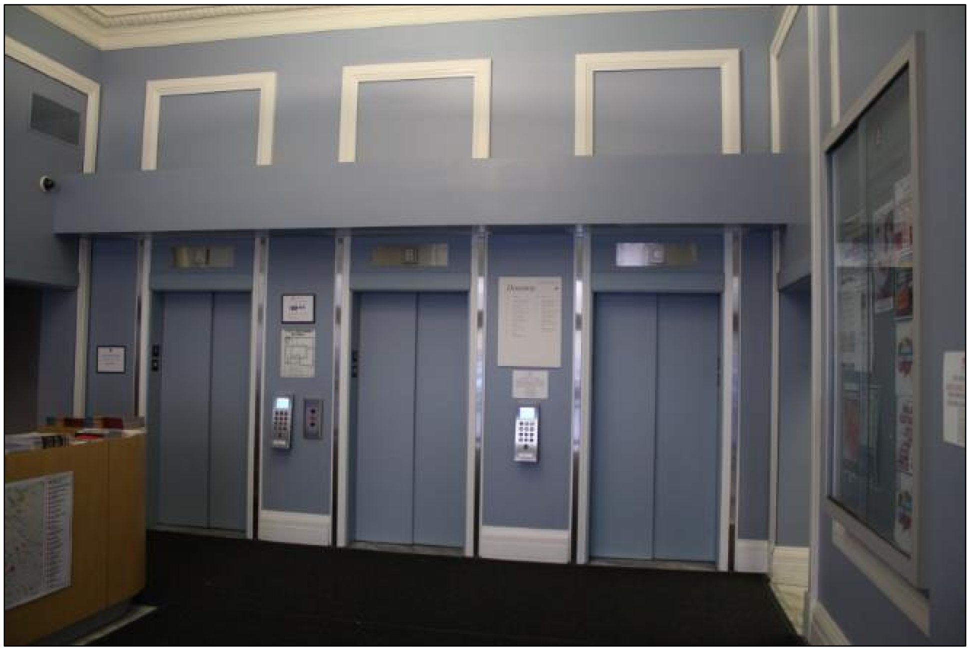


Figure 63. Interior lobby of subject property. (Source: SWCA)

SITE HISTORY

77-79 New Montgomery was constructed in 1913 as a two-story commercial building designed to be expanded in phases up to eight stories.[29] This commission replaced the Crossley Building, which originally occupied the site but was destroyed in the 1906 earthquake and fire. In the initial phase of construction, the first two stories were designed by San Francisco architect Sylvain Schnaittacher (1874-1926), for an estimated cost of $150,000. The property was commissioned by Central Realty Company and its principal stockholder, A. Aronson, "one of the ablest realty operators in the city."[30] The phased building plan was due to the size and divisions of the parcel, which consisted of three separate lots. As building plans were announced in May 1913, the *San Francisco Chronicle* thus described 77-79 New Montgomery:

> Among the new building announcements made this week the most interesting is that of a Class A structure at the northeast corner of Mission and New Montgomery streets [sic]. …The site of the new building was recently acquired by A. Aronson in an exchange of properties from Mrs. Oelrichs. The building is intended to be eventually the first two stories and basement of a big office structure of eight stories. ...The plans have been so laid out that in the event of a purchaser acquiring either one of the three buildings he could add six stories and be independent of the other buildings.

[29] "City Realty Market Is Stirred by Important Transactions," *San Francisco Chronicle*, 17 May 1913. The San Francisco Property Information Map shows a date of construction of 1907; available primary sources indicate the year 1913 for the building's first phase of construction.

[30] "City Realty Market Is Stirred by Important Transactions," *San Francisco Chronicle*, 17 May 1913.

While the architect listed for the 1920 expansion of the property is Mel Schwartz, it appears that the plans and design had already been determined in Schnaittacher's 1913 plans. The 1920 addition brought three more stories, bringing the building to its current five-story massing (rather than the original planned eight stories).

Ownership and tenancy in the building appears to have changed hands on several occasions through the years. Owners/tenants included Associated Oil Company, which occupied the building as early as the 1920s through the mid-1950s, Allied Properties as of the late 1950s, which commissioned the Gardner Dailey remodel of the entrance, and Crocker National Bank/Crocker Properties, which occupied at least a portion of the property from as early as 1960 through the late 1980s. As of 1968, Pacific Telephone and Telegraph occupied office space as a tenant.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

GENERAL NEWS AND CLASSIFIED ADS

San Francisco Chronicle.

PAGES 11 to 20

VOL. CII. SAN FRANCISCO, CAL., SATURDAY, MAY 17, 1913.

CITY REALTY MARKET IS STIRRED BY IMPORTANT TRANSACTIONS

NAVAL BASE NEWS STIRS RICHMOND

Harbor Delegation to Capital Will Take Up Project for East Shore of the Bay.

RESTRICTED PARKS BECOME POPULAR

Stream of Home Buyers Sets In Toward the New Tracts Beyond Twin Peaks.

POLK-STREET CORNER BRINGS LARGE PRICE

Brick Apartment Building in Scene of New Activities Is Sold This Week to Capitalist for $250,000

OFFICIAL RECORD OF CITY REAL ESTATE FOR THE WEEK

TO FORCE STREET WORK IN MISSION

Promotion Association Plans Untried Method to Hasten Public Improvements.

SHREWD BUYERS AGREE

RICHMOND Business Property

Wall's Harbor Center

Burg Bros., Inc.

HARBOR CENTER COMMERCIAL LOTS

Figure 64. Announcement of A. Aronson's new building at 77-79 New Montgomery Street, shown in the image on the upper right, *San Francisco Chronicle*, May 17, 1913.

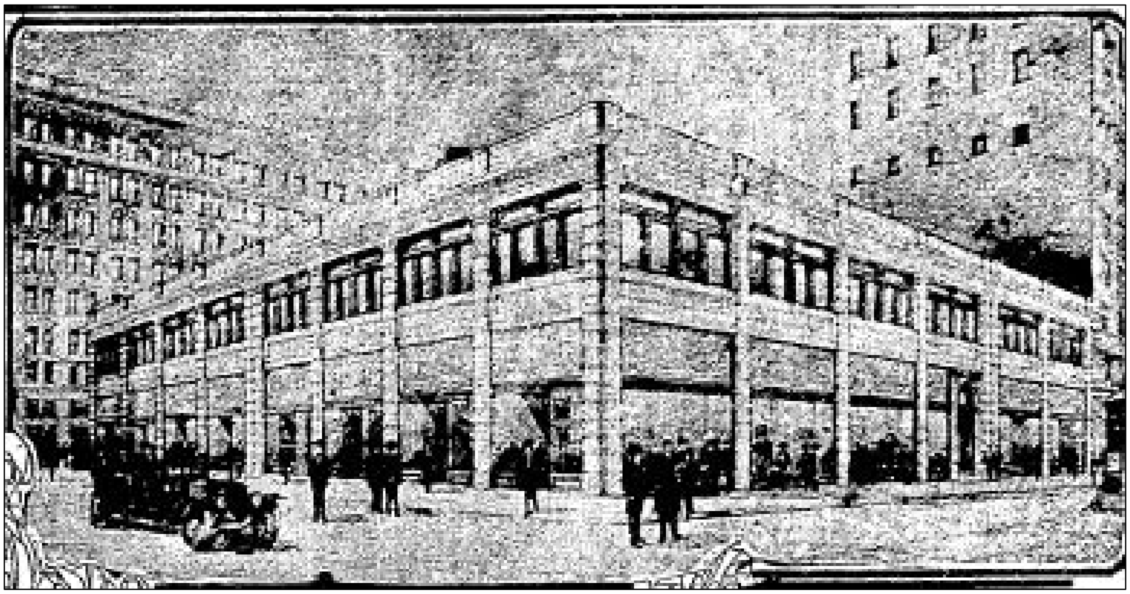


Figure 65. Close up, 1913 rendering of 77-79 New Montgomery Street. (Source: *San Francisco Chronicle*, May 17, 1913)

Figure 66. 1977 photograph of 77-79 New Montgomery Street. (Source: San Francisco Architectural Heritage Survey)

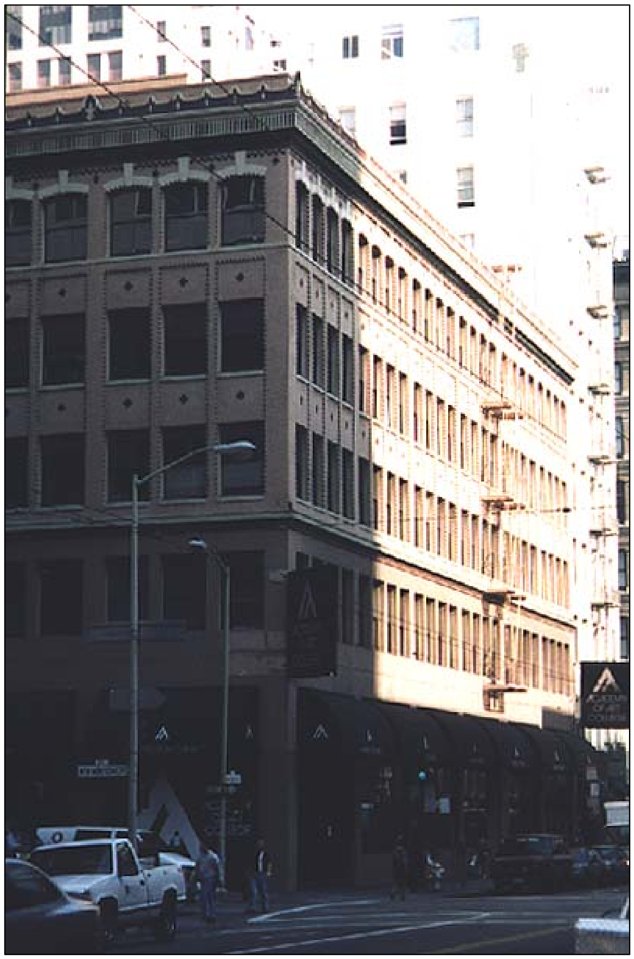


Figure 67. 1992 photograph of 77-79 New Montgomery Street. (Source: Academy of Art University)

Figure 68. 2007 photograph of 77-79 New Montgomery Street. (Source: Transit Center District EIR)

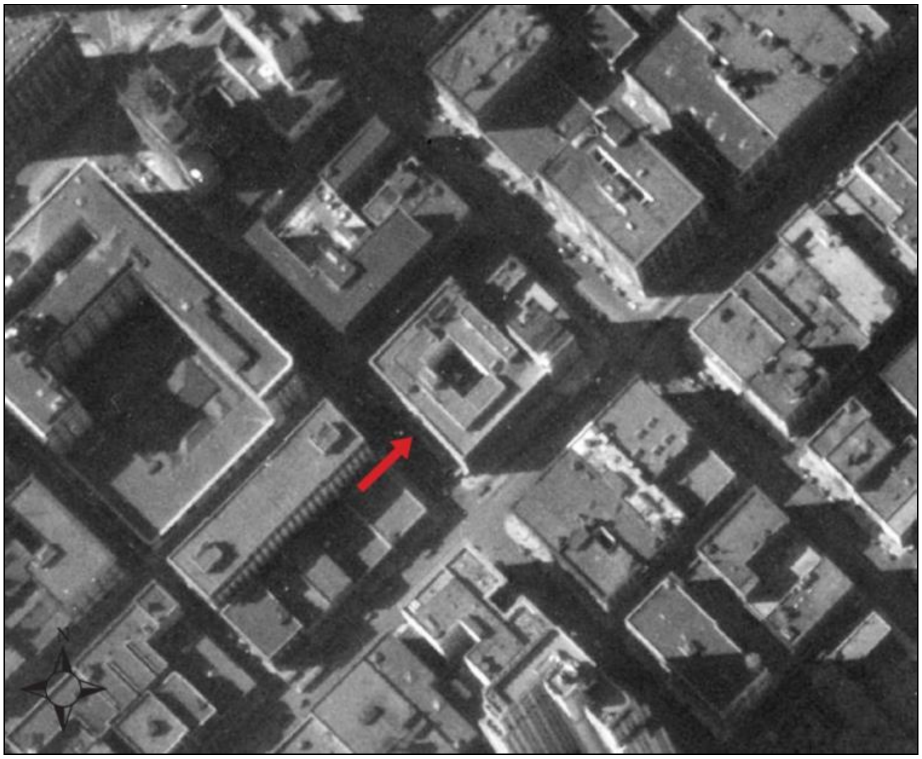


Figure 69. 1931 Aerial Photograph, 77-79 New Montgomery Street. (Source: Environmental Data Resources)

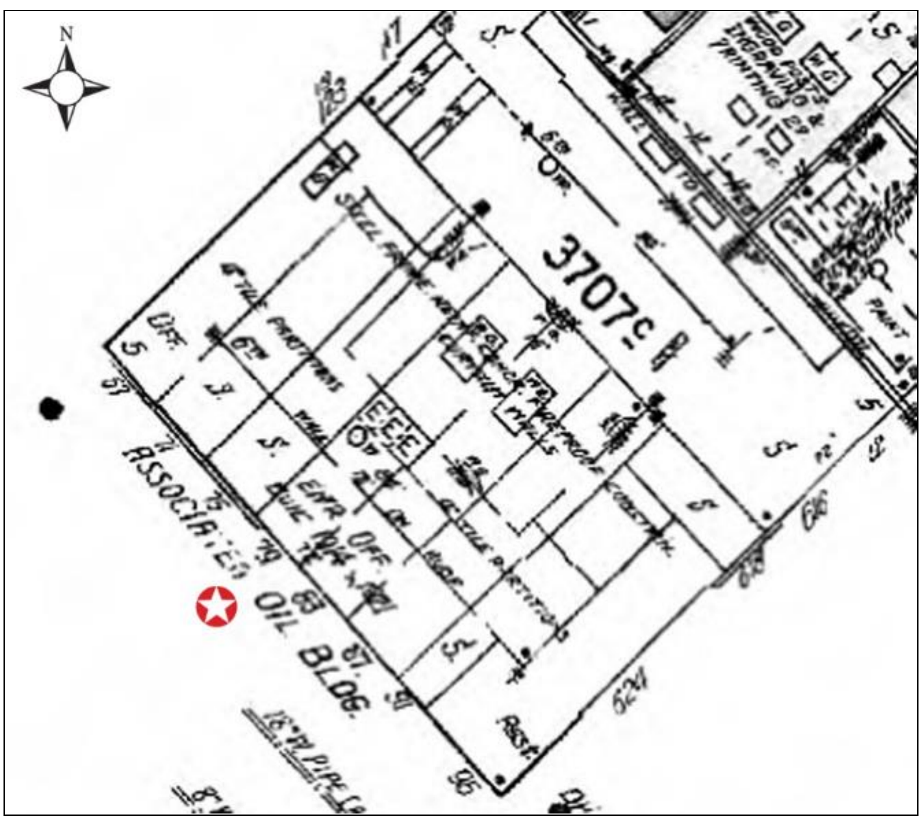


Figure 70. 1949 Sanborn Fire Insurance Map, 77-79 New Montgomery Street. (Source: Environmental Data Resources)

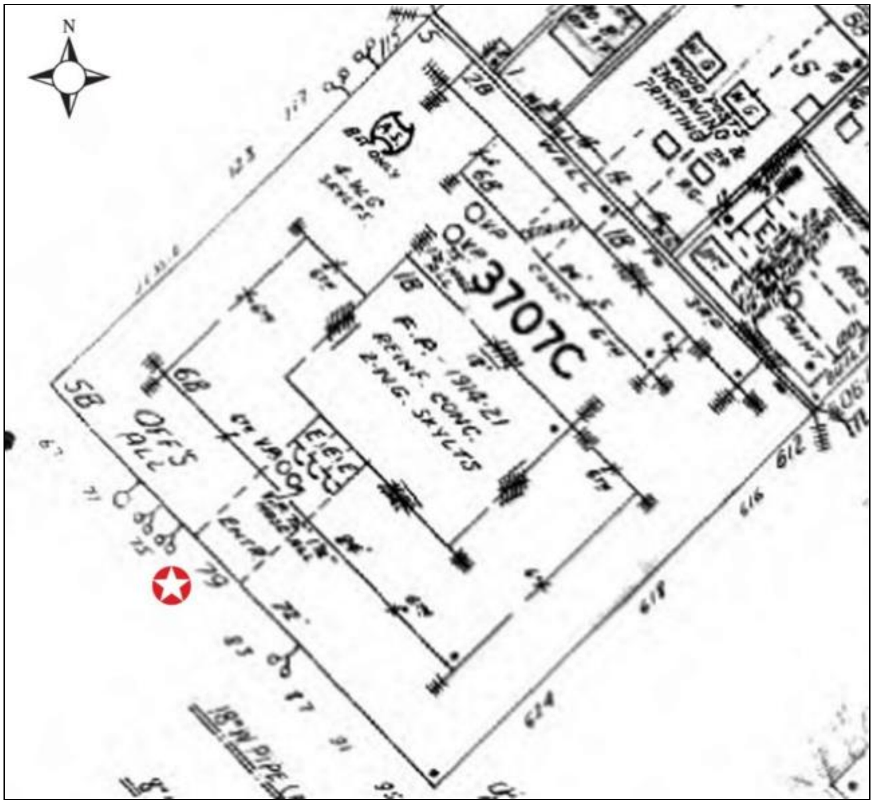


Figure 71. 1970 Sanborn Fire Insurance Map. (Source: Environmental Data Resources)

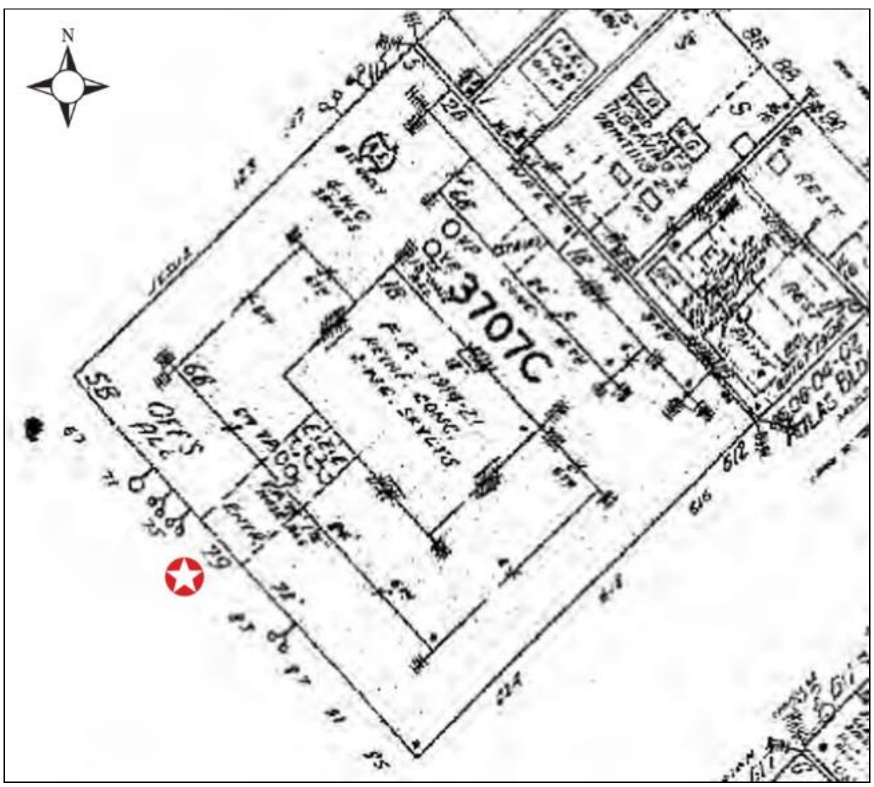


Figure 72. 1999 Sanborn Fire Insurance Map. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 77-79 NEW MONTGOMERY STREET / APN: 3707014

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 11, 1928	170592	Associated Oil Company		$200	To construct a reinforced concrete greasing pit with 5" walls, and 6" concrete floor; and 16' long, 7' wide and 4 ½ ' deep.
June 8, 1938	35718	Wells Fargo Bank & Union Trust Co.		$75	Brace two (2) water tanks on roof.
Nov. 6, 1953	160146 (144669)	Tide Water Associated Oil Co.		$5,000	Remodel and build new office partitions on the 5th floor, partitions to be single panel up 40" and the rest glass.
Dec. 21, 1953	161454 (144996)	Tide Water Associated Oil Co.	Vincent G. Raney	$5,900	Remove some temporary existing partitions to create one large Directors Room. Install new light fixtures. Install climate changer unit, and acoustic tile ceilings, and paint all offices.
Aug. 5, 1955	177871 (159671)	Tide Water Associated Oil Co.		$1,000	Build panel and glass office partition on 5th floor. Partition 4' by 10' high.
Sept. 24, 1959	228225 (204154)	Allied Properties		$1,600	Preliminary Demolition of certain interior partitions on 4th and 5th floors.
Oct. 13, 1959	(204717)	Allied Properties	Gardner A. Dailey	$85,000	Alterations, partitions to be 5/8" sheetrock with steel studs.
Feb. 10, 1960	[not legible]	Allied Properties	Gardner A. Dailey	$3,500	Reconstruct elevator enclosure with 2 hour fire wall and "B" Label doors.
Feb. 4, 1960	232526 (707840)	Allied Properties	Gardner A. Dailey	$11,973	Remodel Lobby entrance.
Apr. 19, 1960	235230 (210481)	Allied Properties Company	Gardner A. Dailey	$75,000	Chipping of front and plastering for installation of enamel metal facing; removal of old store fronts and demolition of interior partitions on 1st floor.
June 30, 1960	238068 (212365)	Crocker-Anglo National Bank	Milton T. Pflueger	$5,000	Demolition of non-bearing interior partition, 2nd floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 26, 1960	(214358)	Crocker-Anglo National Bank	Milton T. Pflueger	$200,000	Level first floor, elevator, new lighting, painting, partitions.
Nov. 18, 1960	243274 (217506)	Allied Properties	Gardner A. Dailey	$20,000	Reconstruct sidewalks, as per plans; removal of existing concrete slabs, installation of new structural sub slabs, installation of membrane, installation of new concrete topping.
Dec. 28, 1960	2164309 (218613)	Allied Properties		$135,000	Alterations for offices, 3rd floor only.
Feb. 3, 1961	245585 (220984)	Crocker-Anglo National Bank	Milton T. Pflueger	$15,000	Remodel portion of 4th floor (north).
Dec. 28, 1960	244361 (222128)	Allied Properties		$750	Demolition of partitions on 3rd floor.
Dec. 20, 1961	259124 (232075)	Allied Properties		$7,000	Remove existing interior partitions. Install new metal stud and 5/8" Gypsum board partitions and full height wood and glass partitions. New suspended 2ft. x 4 ft. grid acoustic ceiling similar to ceilings on 4th and 5th floors. Ceiling is to be suspended from the existing furred plaster ceiling. New asphalt tile flooring.
Nov. 16, 1962	274589 (245645)	Crocker-Anglo National Bank	Milton T. Pflueger	$30,000	Remodeling of portion of basement space including lighting and non-bearing partition work only.
July 9, 1965	317325 (283143)	Crocker Citizens Bank		$1,600	To remove approximately 25 lineal ft. of interior non-bearing partition, move 1 door and enlarge 1 door.
Jan. 22, 1963	277088 (248167)	Crocker-Anglo National Bank	Milton T. Pflueger	$70,000	To change location of non-bearing partitions as indicated on plans excepting for basement work shown on Sheet #A1. Permit issued 12-7-1962, #245645 on Application #274589.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 23, 1963	289031 (257752)	Crocker-Anglo National Bank		$5,000	Drywall partition with metal studs, 7'-6" high; including 4 solid core doors with closers; install 28 L.F. of metal and glass bank type partition including 1 door with closer. All construction to be on 2nd floor in the northwest portion of the building.
Feb. 26, 1964	296141 (264108)	Crocker-Citizens National Bank		$6,000	Construction of approximately 76 (?) L.F. of metal stud and sheetrock partitions 7 ft. high.
April 15, 1964	298644 (266383)	Crocker-Citizens National Bank		$10,000	Construction of approximately 210 L.F. of metal stud and 5/8" sheetrock partitions 7ft. high; new floor covering and repairs to suspended acoustical ceiling.
May 22, 1964	300260 (267898)	Crocker-Citizens National Bank		$14,000	Installation of metal stud partitions, heating and ventilation system, and lighting at mailing department, rear portion of 1st floor adj. to Jessie Street.
Sept. 8, 1965	319831 (285701)	Crocker-Citizens National Bank		$45,000	To do general remodeling and painting of office spaces and toilet rooms.
May 6, 1966	329613 (294183)	Crocker-Citizens National Bank		$1,500	To remove non-load bearing walls at 1st floor to enlarge clear floor areas.
May 26, 1967	(307464)	Crocker-Citizens National Bank		$500	To remove 38 ft. on non-load bearing, non-fire rated interior partitions and paint and patch to complete.
Nov. 7, 1967	350136 (315062)	Crocker-Citizens National Bank	Milton Pflueger	$50,000	To enclose portion of existing light well and do misc. non-load bearing partitions work. To create a machine accounting area, including raised floor section, with structural slab work involved.
May 14, 1968	357007 (320012)	Pacific Telephone & Telegraph Co. (lessee)		$600	Remove two dry wall partitions and restore painting floor and electric (3rd floor).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 25, 1968	364371 (327205)	Pacific Telephone & Telegraph Co. (lessee)		$460	Install (1) "B" Label door & frame from office into corridor, with proper hardware.
Dec. 12, 1968	(328200)	Crocker-Citizens National Bank		$500	Cover the six (6), 1st floor, windows along Mission Street with aluminum; (in order to protect the Data Processing Center).
Apr. 18, 1969	(331440)	Crocker-Citizens National Bank	R. L. Taylor	$9,000	Remove small section of non-load bearing wall, new floor tiles and magnesite floor, misc. electrical and plumbing work.
Feb. 9, 1970	370997 (340987)	Crocker-Citizens National Bank		$600	Demolish approximately 50 L.F. interior non-load bearing partitions on part of the 6th floor.
Mar. 24, 1970	381624 (342330)	Crocker-Citizens National Bank		$2,000	Remove approximately 131 L.F. drywall partitions, and install approximately 671 L.F. drywall partitions.
Mar. 30, 1970	381829 (342459)	Crocker-Citizens National Bank		$1,000	Remove approximately 110 L.F. non-load bearing interior partitions. Remove one plug and relocate one switch; 1st, 2nd, and 5th floors.
July 7, 1970	386049 (346377)	Crocker-Citizens National Bank		$1,000	Remove 24 L.F. of non-load bearing drywall partitions in 1st floor computer department.
Sept. 8, 1970	388295 (348266)	Crocker-Citizens National Bank		$4,000	Relocate door, remove grille, install 120 sq. ft. drywall, relocate switch, and install sink and floor drain, magnesite floor, to convert vending machine room into a photo room on the 3rd floor.
Nov. 18, 1970	391075 (351506)	Crocker-Citizens National Bank		$1,700	Cut and remove two (2) 1' x 2' sections of slab for access doors. Cut and remove two (2) 3' x 5' sections of slab for conveyor belt.
Nov. 12, 1970	390874 (350905)	Crocker-Citizens National Bank		$750	To furnish and install roll-up awning 22 ft. wide, with 4 lateral spans 7'-6" long (all ball bearing gears).
Nov. 24, 1970	391335 (350968)	Crocker-Citizens National Bank		$700	Remove 20 L.F. of non-load bearing wall on the 1st floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 8, 1970	391699 (351214)	Crocker-Citizens National Bank		$2,700	Install 105 L.F. of non-load bearing drywall partition to relocated three personal offices on the 1st floor.
Feb. 4, 1971	393402 (352803)	Crocker-Citizens National Bank		$750	Remove 24 L.F. non-load bearing drywall on the 2nd floor. Install 25 L.F. non-load bearing 1 hr. rated drywall on the 1st floor.
Mar. 25, 1971	39516 (354417)	Crocker Citizens National Bank		$2,500	Install special revolving photo door on 2nd floor.
Apr. 7, 1971	395511 (354351)	Crocker Citizens National Bank		$1,600	Install 15 L.F. non-load bearing drywall partition and relocate security window. Exit corridor to computer room - install one door opening.
Aug. 4, 1971	(358122)	Crocker Bank		$500	Relocate 46 L.F. aluminum and glass partition. Remove 26 L.F. of non-bearing partition on the 1st floor.
Aug. 6, 1971	400093 (358549)	Crocker Bank	George Avanessian	$6,500	Remove existing mezzanine catwalk and alter portion of the building to accommodate 31 flavors Baskin-Robbins Ice Cream Store.
Aug. 4, 1971	(358171)	Crocker Bank		$800	Install 20 L.F. non-bearing partition. Remove 20 L.F. non-bearing partition, 3rd floor.
Sept. 28, 1971 (Oct. 7, 1971)	402012 (360042)	Crocker Bank		$8,000	Install aluminum and plastic enclosure to serve as guard house. Install alum and plastic entrance to serve as security buffer zone in computer center.
Dec. 6, 1971 (Dec. 13, 1971)	404327 (302161)	Crocker Bank		$2,100	Remove 13 L.F. of interior non-load bearing partitions. Install counter and paint on 1st floor. Production control unit.
Dec. 28, 1971 (Jan. 4, 1972)	404946 (362642)	Crocker Bank		$3,000	Remove 500 sq. ft. of magnesite floor covering on 4th floor and replace with vinyl asbestos tile. Install 36 L.F. of interior non-load bearing partition with two doors on 2nd floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 5, 1972 (May 15, 1972)	409089 (366361)	Crocker Bank		$2,400	Construct one room using approximately 50 L.F. of non-loadbearing drywall partition and one door, on the 2nd floor, south side.
June 15, 1972 (June 20, 1972)	410523 (367360)	Crocker Bank		$800	Remove 28 L.F. of non-load bearing drywall partitions. Relocate 20 L.F. of aluminum and glass partitions.
Aug. 17, 1972	412827	Crocker Bank		$1,000	Remove double door & frame, install single door & frame in computer room 1st floor.
Aug. 23, 1972 (Aug. 31, 1972)	413013 (369582)	Crocker Bank		$1,280	Remove 54 L.F. of non-load bearing drywall partition.
(June 5, 1974)	434721 (59062)	Crocker Bank		$38,740	To put in fan coil units for air conditioning on the 2nd, 3rd, 4th and 5th floors. (See permit for more info).
(Jan. 8, 1974)	400258 (384673)	Inter-Cal Properties, Inc.	Continental Development Corp.	$5,000	Removal of non-load bearing partitions on the 1st floor and basement.
Jan. 17, 1974 (Jan 22, 1978)	430567 (385067)	Inter-Cal Properties, Inc.	Continental Development Corp.	$50,000	New interior non-load bearing partitions. Patch floors and replace ceiling tiles as needed. Remove suspended ceiling and replace light fixtures. New wire partitions.
Mar. 18, 1974 (Mar. 29, 1974)	432346 (386975)	Inter-Cal Properties, Inc.	Continental Development Corp.	$17,000	Remove some existing and install new interior non-load bearing partitions, and lighting fixtures.
Apr. 5, 1974 (Apr. 18, 1974)	433013 (387541)	Inter-Cal Properties, Inc.	Continental Development Corp.	$17,000	Remove some existing and install new interior non-load bearing partitions, and lighting fixtures.
May 3, 1974 (May 10, 1974)	434069 (388309)	Inter-Cal Properties, Inc.	Continental Development Corp.	$28,500	Remove some existing and install new interior non-load bearing partitions, and lighting fixtures on 4th floor.
May 24, 1974 (June 18, 1974)	434906 (389570)	Inter-Cal Properties, Inc.	Continental Development Corp.	$34,000	Remove some existing and install new interior non-load bearing partitions, and lighting fixtures on 2nd floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 31, 1975 (Nov. 20, 1975)	453112 (405540)	Inter-Cal Properties, Inc.		$24,808	Construct interior non-load bearing partitions. Relocate electrical and phone outlets. Work is on 2nd, 4th, and 6th floors.
Feb. 17, 1977 (Mar. 14, 1977)	7701626 (420271)	Crocker National Bank		$25,600	Demolition – removal of a portion of interior non-bearing walls. Fabricate and install new interior wall consisting of metal studs and 5/8” sheetrock. Replace existing ceiling tile (2’ x 4’ grid). (See permit for more info. for elec. and mec.).
Sept. 21, 1977 (Oct. 6, 1977)	7709977 (427797)	Inter-Cal Properties, Inc.		$3,300	Remove sheetrock walls, build 1 new sheetrock wall. Relocate (?) bulletin boards, patch ceiling. Light and elect.
Dec. 9, 1977 (Dec. 13, 1977)	7712934 (430482)	Inter-Cal Properties, Inc.		$8,000	Remove sheetrock walls – build new sheetrock walls. Patch ceiling at walls removed, paint. Elect. light, and plumb. Open existing windows and install new glass in existing openings.
Aug. 11, 1978 (Oct. 5, 1978)	7808563	Crocker National Bank		$49,924	Title 19 – existing high rise life safety program building less than 150 ft.
Jan. 15, 1979 (Jan. 23, 1979)	7900514 (444796)	Crocker Bank	Reel/Grobman & Associates	$12,000	On 1st floor; install drywall partition, change ceiling tiles & painting.
June 6, 1980 (June 12, 1980)	8005009 (461881)	Crocker National Bank	Gensler & Associates	$38,000	Demolition and removal of all non-bearing partitions, flooring, hung ceilings on the 5th floor only.
Aug. 14, 1980 (Sept. 26, 1980)	8007244 (464606)	Crocker Bank	Gensler & Associates	$400,000	Seismic reinforcement of all floors (basement through roof). General alteration of floors for office use; including drywall, acoustic ceilings, electric, air conditioning & heating, and toilet room.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
(Dec. 2, 1980)	8008735 (466508)	Crocker Bank	Gensler & Associates	$500,000	Seismic reinforcement and tenant work 4th floor only. Previously approved for 5th floor under App #8007244.
Dec. 22, 1980 (Jan. 16, 1981)	8011186 (467631)	Crocker Bank	Henry Chang Drafting	$10,000	Install automatic teller machine – remove existing wall, construct new wall, wire for ATM.
Dec. 30, 1980 (Jan. 28, 1981)	8011300 (467960)	Crocker Bank	Gensler & Associates	$50,000	Expansion of work (remodel) already underway on 6th floor under permit #8007244.
(Jan. 15, 1981)	8100446 (467543)	Crocker Bank	Di Giacomo	$20,000	Extend 3" fire lane from 6" main to existing wet standpipe in basement. Cut & cap water storage tank at 5th floor clg.
(Feb. 23, 1981)	8101435 (468646)	Crocker Bank	Gensler & Associates	$35,000	Demolition of partitions of existing partitions to accommodate new offices.
Jan. 19, 1981 (Mar. 26, 1981)	8100522 (469583)	Crocker Properties	Gensler & Associates	$100,000	Alteration of interior spaces to include office arrangement.
Apr. 27, 1981 (May 5, 1981)	8103840 (471134)	Crocker Properties	Gensler & Associates	$5,000	Demolition permit for removing portions of basement floor for new shear wall concrete section.
Mar. 6, 1981 (May 1, 1981)	8103840 (471134)	Crocker Properties	Gensler & Associates	$370,000	Interior refurnishing of former offices; consisting of new walls, ceiling, flooring, HVAC, and electrical, all for new offices.
(May 28, 1981)	8104349 (471590)	Crocker Bank		$1,500	Permit to erect projecting sign.
Feb. 13, 1981 (July 20, 1981)	8101434 (473107)	Crocker Bank	Shapiro, Okino, Hom	$150,000	Construction of shear wall and foundations for six (6) floors of building.
Oct. 6, 1981 (Dec. 21, 1981)	8108724	Crocker Properties	Gensler & Associates	$60,000	1st floor, Phase 1; interior remodel of certain portions of this floor, including partitions, ceiling, HVAC, plumbing & electrical.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 23, 1981 (Oct. 7, 1981)	8108313 (475527)	Crocker Properties	Gensler & Associates	$35,000	Request demolition permit to commence remodel work proposed for 1st floor of Crocker Bank building. Work involves removal of flooring, partitions, and ceiling.
Feb. 9, 1982 (Mar. 5, 1982)	8200963 (479496)	Crocker Properties	Gensler & Associates	$115,000	Phase II, renovation of 1st floor.
Apr. 2, 1982 (May 10, 1982)	8202556 (481330)	Crocker Properties	Gensler & Associates	$172,000	Remodel of existing store fronts facing on Jessie, New Montgomery & Mission Streets. Scope involves demolition of porcelain enamel panels being replaced with tempered Thermopane glass and lath & plaster borders. Painting walls.
Apr. 5, 1982 (May 23, 1982)	8202669 (481925)	Crocker Properties	Gensler & Associates	$260,000	Interior renovation for in phasing of 1st floor. Permit already issued for Phase 1. This is for Phase 2 and 3, which completes 1st floor.
Jan. 10, 1983	8209763 (496610)	Crocker Bank		$3,000	To erect sign on wall.
Apr. 29, 1983 (May 13, 1983)	8303695 (500862)	Crocker Bank	Tai Associates	$15,000	Removal of non-bearing sheet rock partitions and block masonry walls in basement area.
June 15, 1983 (Nov. 21, 1983)	8305507 (508365)	Crocker National Bank	Tai Associates/Architects	$450,000	General remodeling of basement and exit corridor on 1st floor, including new partitions, floor finishes, bathrooms, sprinkler system, and stair. Mechanical and electrical work.
Feb. 29, 1984 (Apr. 27, 1984)	8402083 (514761)	Crocker National Bank	Tai Associates/Architects	$140,000	General remodeling of 4,500 sq. ft. of basement space including new partitions, floor finishes. Sprinkler system and mechanical and electrical improvements.
Apr. 13, 1984 (Apr. 15, 1984)	8403945 (515503)	Crocker Bank		$6,000	Remodel sprinklers in basement.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Apr. 3, 1985 (Jan. 17, 1986)	8507966 (542421)	Crocker Properties	Tai Associates/Architects	$40,000	Minor non-structural partition demolition. Minor new walls, electrical.
Nov. 18, 1987 (Dec. 10, 1987)	8716518 (580748)	79 New Montgomery Assoc., c/o the Ron Kaufman Company	Stanley Wong	$5,500	Remove existing ceiling non-fire rated, non-load bearing partitions and acoustic tile ceiling on a portion of 1st floor in order to better show size of space.
Oct. 27, 1989	8920562 (626218)	The Ron Kaufman Company		$29,000	Demolition of non-bearing block walls and construction of drywall partitions in their place (interior work).
June 6, 2015 (Feb. 24, 1989)	8808019 (608717)	The Ron Kaufman Company	Stanley Wong	$300,000	Renovate ground floor retail space into full service restaurant with kitchen and banquet facilities.
Oct. 27, 1989	8920562			$29,000	E.W.O.
Jan. 4, 1990	9000288 (632048)	The Ron Kaufman Company		$200,000	Repair of seismic bracing damaged in earthquake. EWO-S
Apr. 5, 1993 (May 6, 1993)	9305460 (720868)	Dick Stephens		$8,500	Erect an electric sign, (sign C).
Apr. 5, 1993 (May 6, 1993)	9305461 (720867)	Dick Stephens		$8,500	Erect an electric sign, (sign B).
Apr. 5, 1993 (May 6, 1993)	9305463 (720869)	Dick Stephens		$8,500	Erect an electric sign, (sign A).
Nov. 28, 2000 (Dec. 15, 2000)	200011286673			$19,922	Re-roofing permit.
June 28, 2001	200106282578 (325994)	AAU		$1,000	17 awnings and 2 banners. 17 awnings have logo on valance. Banners have “Academy of

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
(July 23, 2001)					Art College" on both sides, painted on canvas.
June 28, 2001 (Aug. 16, 2001)	200106282578 (946485)	AAU		$30,000	Seventeen (17) new awnings at three elevations. Two banners at the entrance.
Aug. 16, 2001	200108166236 (946469)	Richard Stephens		$1	Delete two (2) banners from scope of work. Awnings to remain.
July 1, 2002	200207010439			$7,200	Remove all Lodge spilling concrete that may be a hazard from exterior.
Aug. 7, 2003	200308071513			$1	To document a local code equivalency request to allow an interior measure of the use of easement.
June 23, 2010 (July 9, 2010	201006235132 (1216114)	79 New Montgomery LLC.	Dennis Smith	$10,000	AAU. To comply with NOV 201030890 for new wall built without permit.
Aug. 17, 2010	201008178985			$300,000	Respond to NOV #201052238. Legalize work done without permit. Verify Occupant load of existing assembly area. (All interior work).
Nov. 15, 2010 (Dec. 8, 2010)	201011054415 (1227298)	AAU	Doug Tom	$170,000	Convert 3,450 sq. ft. from "B" to "M" occupancy. Alterations to display area and disabled (ADA) access upgrades at restrooms. All work on 1st floor.
Dec. 27, 2010 (Dec. 28, 2010)	201012277424 (1228481)	AAU	Doug Tom	$15,000	Revision to App #201011054415. Increase size of disabled access rest rooms. Adjustment to second means of egress due to existing slab conditions.
Apr. 28, 2011 (Oct 13, 2011)	201104284951 (1249657)	AAU	Jason Louie	$16,000	Replace deteriorated and cracked concrete at the incased beams with new concrete (4th floor).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 9, 2011	201105095673			$1,000	Painted (non-structural) sign
May 8, 2012 (June 18, 2012)	201204248995 (1267279)	AAU	Julian Wh te	$299,601	Install new Fire Alarm system, all interior work.
Aug. 19, 2010 (July 10, 2012)	201008178985 (1268991)	AAU			
June 10, 2013 (July 3, 2013)	201306109031 (1298073)	AAU	Doug Tom	$300,000	To respond to NOV #201052238. Legalize work done without permit. Verify occupant load of existing assembly areas.
Sept. 24, 2015	201509247946			$2,000	To abate planning violation, remove painted wall signs at back of building facing 2nd Street.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

The subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR).

In addition to being a contributing property in the New Montgomery-Mission-Second Street Conservation District, 77-79 New Montgomery Street appears CRHR-eligible both individually and as part of a historic district under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 earthquake reconstruction period. The property also qualifies individually and as a contributor to a historic district under CRHR Criterion 3, as an excellent example of Renaissance Revival-influenced commercial architecture in downtown San Francisco. The corresponding California Historic Resources Code is 3CB.

The evaluation also considered the 1960 entrance/lobby remodel by master architect Gardner Dailey. Because the remodel represents only a small portion of the building, it does not qualify for landmark listing (but is of note in the property's history).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The subject property retains integrity and remains CRHR-eligible both individually and as a contributor to the historic district. The period of significance is 1913-1933, with the end date corresponding with end of the period of significance for New Montgomery-Mission-Second Street Conservation District.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Symmetrical design composition
- Building set flush to sidewalk
- Rectilinear building plan
- Ornamental detailing, accenting bays, spandrels, and windows
- Continuous, parallel bands of double-hung windows, slightly recessed in wall plane
- Five-story square plan building
- Flat roof terminating in projecting ornamental cornice line
- Top floor windows articulated with segmental arched openings and keystone accents
- Belt course defining the horizontal axis between second and third stories
- Large storefront windows

Interior

- Entrance configuration, deeply recessed entrance, leading to open lobby and three elevator bays
- Marble floor and walls in lobby
- Remnants of original ornamental program and detailing (crown molding accenting the ceiling, molded panels, chandelier)

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Building was enlarged to five stories in 1920 by architect Mel I. Schwartz (in an expansion of the building originally planned in 1913)
- Remodel entrance and interior lobby in 1960 by Allied Properties and architect Gardner A. Dailey (Permit 232526)
- Storefront alterations were first completed in 1960 by Allied Properties (Permit 235230). Later alterations were made by Crocker Properties in 1982 (Permit 8202556); this appears to have included the nonoriginal stucco sheathing added to the two-story base of building (SF Planning, San Francisco Property Information Map data)

Post-AAU Alterations:

- Building reroofed in 2000 (Permit 200011286673)
- Existing awnings located over storefront windows on New Montgomery Street, Mission Street, and Jesse Street were installed in 2001 (Permit 200106282578)
- Current signage installed in 1993 (Permits 9305460, 9305461, and 9305463)
- Security cameras added
- Secondary entrance door (eastern end, Jesse Street elevation) installed in 2009 (AAU, Memo to SWCA, 2/2/2016)
- Replacement roll-up door installed along Jesse Street in 2011 (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

The lobby appears to retain its overall original configuration, as well as remaining details (such as crown molding detailing). In continuous use since 1913, the interior spaces have been altered on numerous occasions, as shown in building permits. Changes have included the reconfiguration of office spaces, replacement of elevators and lighting, removal and construction of partitions, materials, and other decorative features. In addition, AAU replaced concrete on encased beams, and in 2012 installed a new fire alarm system (Permits 101104284951 and 201204248995).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

77-79 NEW MONTGOMERY (ES-27)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Awnings	2001	Yes	Yes	No	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Signage	2011	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove two of the three signs per the recommendations described below
Security Cameras	Post-1992	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awnings: The project complies with Rehabilitation Standard No. 2. The storefront openings (in size, configuration, and profile) that span the ground-level are considered character defining. As of 1992, the building had barrel-vault awnings that were significantly larger and blocked views of these character-defining features to a greater degree than the extant awnings. The extant awnings, while they also span all primary elevations of the building, their profile/projection widths are thin and relatively unobtrusive. Therefore, the shape, size, and character of the original storefront windows are easily discernible. With the stucco-cladding and in-filled transoms constituting noncontributing features, the awnings do not block or obscure character-defining features.

Signage: The project does not comply with Rehabilitation Standard No. 2. The building features a symmetrical, rhythmic design consisting of parallel bands of window bays that span each story of the building. This feature is character defining. The projecting signs, as currently installed on three prominent corners of the building, in a position that spans the first and second stories, present a visual interruption of this symmetrical, rhythmic design, segmenting what was intended to be a continuous, unified façade design.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awnings: The project does not comply with Rehabilitation Standard No. 3. Although awnings are often found on similar commercial properties from this era, historic photographs indicate that such a feature was not present on the building during the period of significance. The awning introduces an element that is not representative of the property's historical use and appearance.

Signage: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have blade sides during the period of significance. The sign introduces an element that is not representative of the property's historical use and appearance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Awnings: Rehabilitation Standard No. 4 is not applicable to this project.

Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awnings: The project complies with Rehabilitation Standard No. 5. Although the ground-level storefront openings are character defining, the wall materials to which the awnings are fastened consist of noncontributing stucco sheathing. This stucco was used to in-fill the transom windows in the 1980s. The project affects materials that do not characterize or convey the historic significance of the property.

Signage: The project does not comply with Rehabilitation Standard No. 5. For each of the three signs, the project involved the installation of two steel, L-shaped mounting brackets, which are bolted to the masonry of the exterior walls. Each L-shaped mounting bracket is fastened to the masonry walls with at least eight bolts. The recommended approach in the SOIS for installing signage is to utilize mortar joints or the jamb of a noncontributing storefront component (rather than character-defining masonry). The project is likely to have resulted in damage to character-defining wall materials as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and the property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Awnings: Rehabilitation Standard No. 6 is not applicable to this project.

Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Awnings: Rehabilitation Standard No. 7 is not applicable to this project.

Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Awnings: Rehabilitation Standard No. 8 is not applicable to this project.

Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Awnings: The project complies with Rehabilitation Standard No. 9. The awnings are located within the existing storefronts and installed into noncontributing wall materials (in stucco sheathing applied in the early 1980s). Thin in profile and unobtrusive in appearance, the awnings are compatible in size, scale, and proportion, and do not obscure character-defining storefront openings.

Signage: The project does not comply with Rehabilitation Standard No. 9. The building's symmetrical, rhythmic design is character-defining. The projecting signs interrupt the two-part vertical design as well as the horizontal banding of fenestration across all visible elevations of the building. In addition, the signs interrupt the bold, unadorned corner piers of the building. In this way, the signs add a highly visible element that is not compatible with the historic character, materials, and features of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awnings: The project complies with Rehabilitation Standard No. 10. If the awnings were removed, the essential form and integrity of the historic property would remain unimpaired.

Signage: The project complies with Rehabilitation Standard No. 10. If the signs were removed, the essential form and integrity of the historic property would remain unimpaired.

Security Cameras: The project complies with Rehabilitation Standard No. 10. If the security cameras were removed, the essential form and integrity of the historic property would remain unimpaired.

ARTICLE 11 ANALYSIS

77-79 New Montgomery Street is a Category I ("Significant") contributing property within the New Montgomery-Mission-Second Street Conservation District.

Article 11, Appendix F, Section 6 of the San Francisco Planning Code describes the overall character and scale of the New Montgomery-Mission-Second Street Conservation District. Throughout the district overall, contributors are divided into bays that establish a cohesive, rhythmic character along the street line. The subject property is consistent with this overall character, as reflected in the building's symmetrical, rhythmic design composition, repeating window bays that span the building on each floor. These character-defining design elements are the focus of the following Article 11 compliance analysis.

Prior to AAU's acquisition of the property, the ground-level storefronts facing New Montgomery and Mission Streets were altered in 1960 and 1982, according to building permits on file with the San Francisco Department of Building Inspection. Alterations resulted in the infill of transom windows, application of stucco over the windows, and the extensive reconfiguration of the primary entrance on New Montgomery Street.

Awnings

The AAU awnings currently spanning the ground floor of the property appear compliant with Article 11 guidelines. Although partially altered, the storefront openings continue to be character-defining features of the building. The AAU awnings are thin in profile and located within the frame of each storefront opening. Given this, they do not obscure the spacing of bays and the elements that characterize and define those bays. The piers that separate the bays are still clearly visible, and the transoms located above the awnings, while infilled, are still discernible.

Projecting Signs

Per the applicable guidelines for projecting signs within Conservation Districts (including in Article 11 and Article 6), the scale and placement of signs shall be appropriate to the elements of the building.[31] Installed on prominent, highly visible corners, the three projecting signs interrupt the symmetrical, rhythmic design of the building, segmenting what was intended to be a continuous, unified composition. The three signs are considered to be in noncompliance with applicable guidelines for projecting signs in Article 11 Conservation Districts.

In addition, the signs appear to be internally illuminated signs with plastic lenses, supplied power via conduit that is exposed and attached to the face of the building. Under Article 11 guidelines, internally illuminated signs are not permitted (the guidelines call for either indirectly or externally illuminated lights), and conduit must be concealed rather than attached to and left exposed on the face of the building, the sign structure, or the sign itself.[32]

In terms of location, the signs were installed above the storefront transom openings, extending above the lintel of the second-floor windows. According to Article 11 guidelines, projecting signs may not be located

[31] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," November 2012, 14.

[32] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 11-13.

above the window sill of the first residential floor.[33] The location of the signs appears to be in noncompliance with Article 11 guidelines.

Moreover, the installation of signs on properties in Conservation Districts is to be undertaken in such a way that "avoids damaging or obscuring any of the character-defining features" of the property and that "allows for their removal without adversely impacting the exterior" of the building.[34] The L-shaped mounting brackets and bolts installed in the exterior masonry walls appear to be in noncompliance with these requirements.

RECOMMENDATIONS

The awnings and security cameras are both compliant with the SOIS and Article 11 guidelines, and no design modifications are recommended at this time for either element.

The projecting signs do not appear to comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. In order to facilitate compliance, it is recommended that the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) be removed, and the original surface patched and repaired where necessary and refinished to match existing in materials and appearance.

In order to facilitate compliance with Article 11 guidelines, the one remaining sign would ideally be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and overall design.

In addition, during site inspections, exposed conduit was noted on the exterior walls left of the entrance. It is recommended that any exposed conduit be concealed from view, per the Article 11 guidelines for properties in adopted Conservation Districts.

---

[33] *DRAFT Sign Controls, Planning Code Article 6*, "Requirements for Signs within Article 11 Conservation Districts," 14.

[34] *DRAFT Sign Controls, Planning Code Article 6*, "Requirements for Signs within Article 11 Conservation Districts," 11-13.

180 NEW MONTGOMERY STREET (ES-28)

APN: 3722022 (address spans 170-180)

Construction Date: 1920

Architect/Builder/Designer: Kenneth MacDonald, Jr.

Previous Status: Category A

Previous CHR Status Code: 3CB (appears CRHR eligible individually and as contributor to historic district); Article 11, New Montgomery Mission Second Street Conservation District, Category IV

Date of Past Surveys/Evaluations: 1978; 2012

Current CHR Status Code: 3CB; Article 11, New Montgomery Mission Second Street Conservation District, Category IV

AAU Acquisition Date: 1995

Applicable Criteria: 1 and 3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Constructed as a mid-rise office building in 1920, 180 New Montgomery is rectangular in plan and set flush to the sidewalk. The primary elevation, which spans 11 bays, faces New Montgomery Street. Secondary elevations front Howard Street (with eight bays), Natoma Street (nine bays), and a small service lot adjacent to Howard Street. The building displays a Renaissance/Classical Revival-influenced style, the building has a symmetrical design composition, with bands of windows defining the horizontal axis, and bold corner piers marking the vertical axis. The building is capped with a flat roof, terminating in a terra cotta cornice, accented with decorative panels.

Figure 73. 180 New Montgomery Street. (Source: SWCA)

On the primary elevation, the oversized ground-story displays a recessed main entry with terrazzo sheathing on the floor and walls. Former large storefront windows, separated by columns, have been in-filled or the extant glass overpainted. Above the first floor, parallel bands of rectangular fixed windows are separated by ornamental terra cotta spandrel panels.

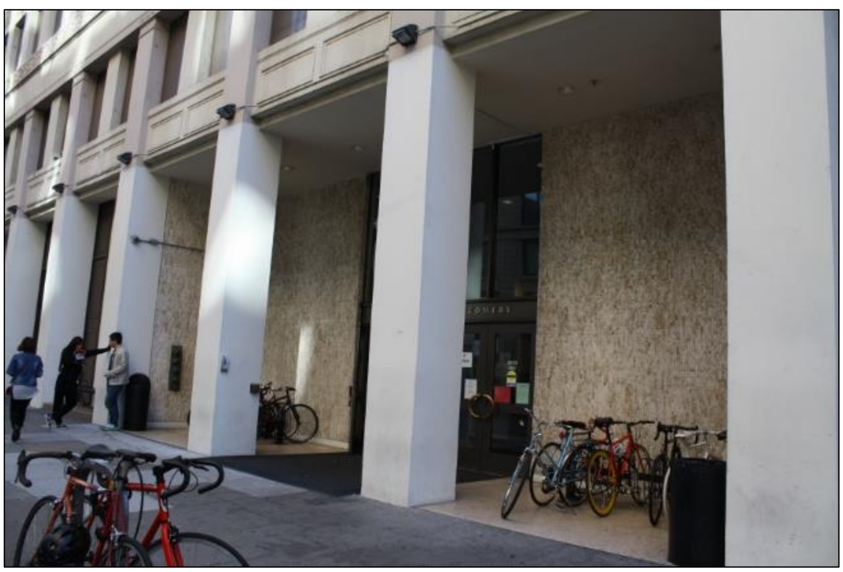


Figure 74. 180 New Montgomery Street, detail, main entry of the primary elevation. (Source: SWCA)

Figure 75. 180 New Montgomery Street, detail, main entry on the primary elevation. (Source: SWCA)

Figure 76. 180 New Montgomery Street, detail, windows and terra cotta spandrel panels. (Source: SWCA)

Figure 77. 180 New Montgomery Street, detail, in-filled storefronts on the primary elevation. (Source: SWCA)

On the secondary elevations, fenestration patterns match those of the primary elevation. Along Howard Street, all windows are fixed. Natoma Street elevation retains its original steel-frame casement windows. The ground-floor storefront windows along Howard and Natoma Street have either been in-filled or overpainted/covered. No fenestration is located on the southwest elevation; however a stair tower has been added.

Figure 78. 180 New Montgomery Street, southeast perspective of the northwestern elevation. (Source: SWCA)

Figure 79. 180 New Montgomery Street, northwestern perspective of the southwest elevation. (Source: SWCA)

The main entry leads to a T-shaped lobby featuring Terrazzo flooring and walls. The rectangular lobby sections provide access to an enclosed main stair and a bank of elevators at the rear of the lobby.

Figure 80. Interior lobby of subject property. (Source: SWCA)

SITE HISTORY

Designed by architect Kenneth MacDonald, Jr., 170-180 New Montgomery Street was constructed in 1920 to serve as the San Francisco Furniture Exchange. The building was constructed for an estimated cost of $700,000 and commissioned by the Sharon Estate and Henry J. Moore, head of the city's Furniture Exchange. Upon its construction, the building was heralded in the *San Francisco Chronicle* as offering "a practical solution of what has been one of the city's greatest commercial problems"—namely, that previously "foreign buyers landing at any Pacific Coast port and representatives of Western houses" had been "compelled to make a long trip East to inspect furniture stocks."[35] Once completed, space in the building went quickly, with "practically all the large manufacturers of furniture in the United States represented" in the Furniture Exchange.

By the late 1960s, for at least twenty years, the building served as one of several locations in San Francisco for the offices of Pacific Telephone & Telegraph Company/Pacific Bell.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

[35] "City of Have $700,000 Furniture Exchange Building, Block Will Be Covered by Big 8-Story Edifice," *San Francisco Chronicle*, 24 April 1920.

3 SAN FRANCISCO CHRONICLE, SATURDAY, APRIL 24, 1920 5

City to Have $700,000 Furniture Exchange Building

BLOCK WILL BE COVERED BY BIG 8-STORY EDIFICE

Sharon Estate Will Begin Work Immediately on Structure Already Under Lease

FOREIGN BUYERS AIDED

Project Will Do Away With Trips to East for Stock Inspection

THE eight-story building to go up on the block bounded by Natoma, New Montgomery and Howard streets and to be occupied by the Furniture Exchange. Kenneth MacDonald Jr. is the architect.

Advice on Realty Investments, New Brokers' Feature

Department Affords Laymen Counsel on Best Site and Building

Real Estate Transactions of the Week

PROFESSIONAL MEN COLONIZE IN HOME PARK

Spring Season Promises to Be Banner Building Term in Residence Area

Hebrew Home And Hospital Unit to Go Up

PLANS for a class A hospital and home buildings to be erected on the Mission road inside the city limits for the Hebrew Hospital and Home for the Aged and Disabled are to be prepared by Architect Sam Lightner Hyman, Crocker building. Only the first unit of the huge project will be undertaken at this time. The work when completed will represent an expenditure of between $700,000 and $800,000. The first unit, according to present estimates, will cost in the neighborhood of $400,000.

REALTY OWNING PUTS CURB ON PROFITEERING

Nature of Real Property Bar Against Monopolistic Practices

FOR SALE

Redwood City

$80,000

Wonderful Homesite or For Subdivision

40 acres on the State Highway, nicely wooded, with grounds laid out complete in every detail. Abundance of water.

See

Buckbee Thorne & Co

151 Sutter Street

San Francisco

Exclusive Agents

Figure 81. April 1920 *San Francisco Chronicle* article, announcing construction of 180 New Montgomery. (Source: San Francisco Heritage)

Figure 82. 1930 photograph of 180 New Montgomery Street. (Source: San Francisco Public Library History Center)

Figure 83. 1977 photograph of 180 New Montgomery Street. (Source: Charles Hall Page & Associates Survey, 1977)

Figure 84. 1995 photograph of 180 New Montgomery Street. (Source: AAU, 1995)

Figure 85. 2015 photograph of 180 New Montgomery Street. (Source: SWCA)

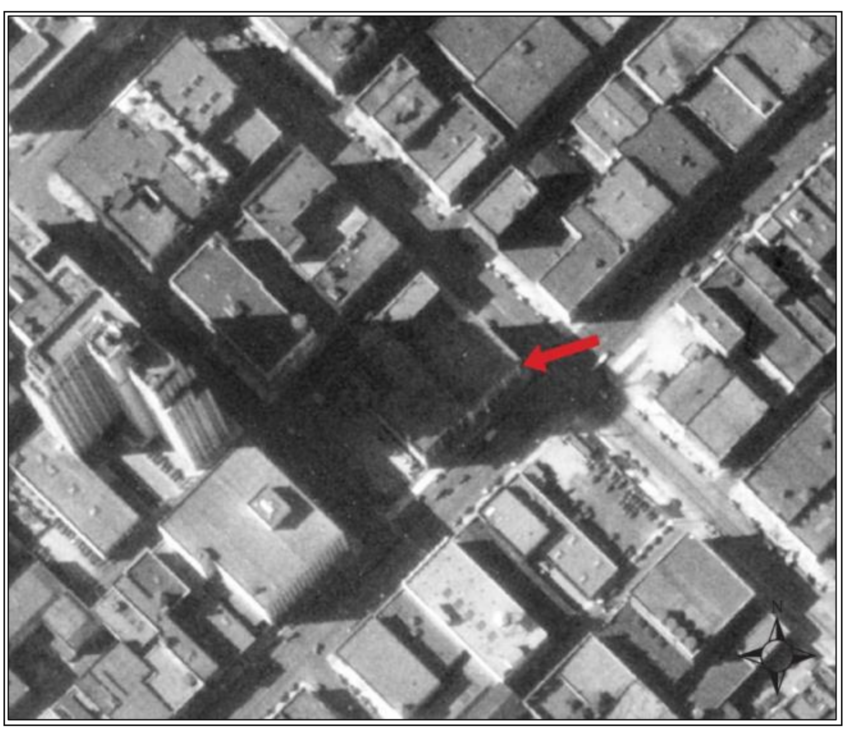


Figure 86. 1931 Aerial Photograph, 180 New Montgomery Street. (Source: Environmental Data Resources)

Figure 87. 1949 Sanborn Fire Insurance Map, 180 New Montgomery Street. (Source: Environmental Data Resources)

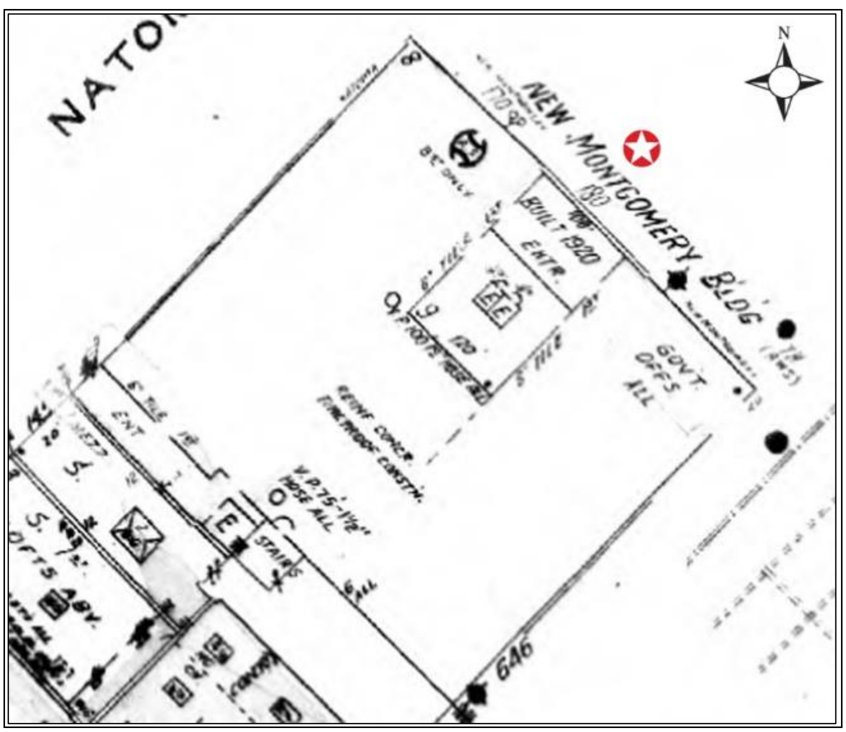


Figure 88. 1970 Sanborn Fire Insurance Map, 180 New Montgomery Street. (Source: Environmental Data Resources)

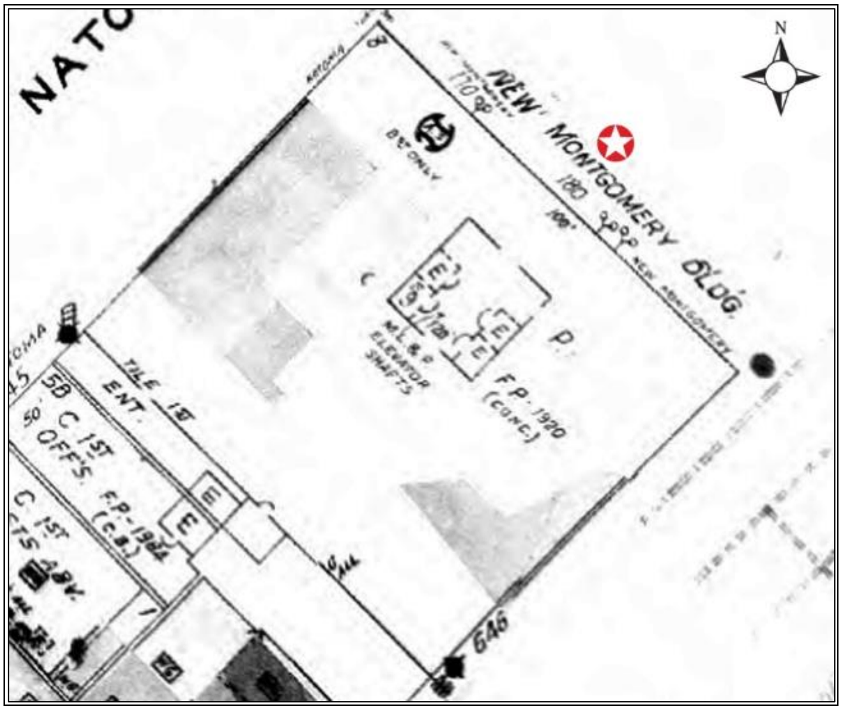


Figure 89. 1984 Sanborn Fire Insurance Map, 180 New Montgomery Street. (Source: Environmental Data Resources)

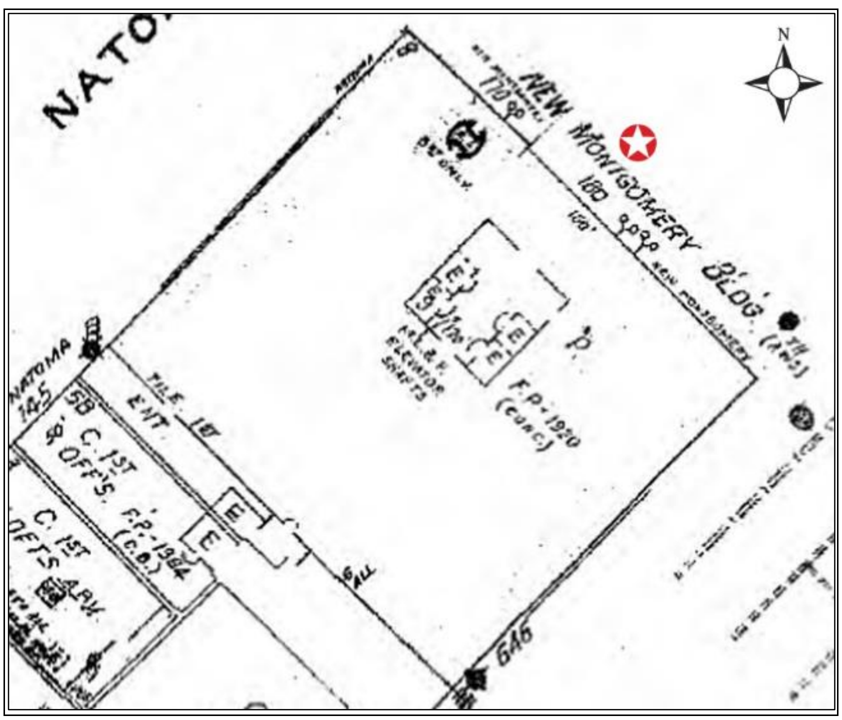


Figure 90. 1999 Sanborn Fire Insurance Map, 180 New Montgomery Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 180 NEW MONTGOMERY STREET / APN: 3722022

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 1, 1964 (Oct. 5, 1964)	305785 (272877)	Haas & Haynie Corp.		$1,000	Partitions to be removed, and carpet, electric fixtures, and plumbing fixtures.
Apr. 14, 1965 (Apr. 16, 1965)	(279781)	180 New Montgomery (A Corporation)		$25,000	Partitions, elevators, lighting fixtures, plumbing fixtures, and floor covering to be removed from all floors.
Apr. 27, 1965 (May 10, 1965)	314176 (280649)	180 New Montgomery (A Corporation)	Robert R. Weber & Associates	$225,000	Install four (4) new elevators and one set of stairs, all complete with enclosure walls from the basement to the penthouse.
May 17, 1966 (June 30, 1966)	330036 (296048)	180 New Montgomery (A Corporation)	Robert R. Weber & Associates	$380,000	Provide raised floor on 1st floor. Extend one elevator into basement. Alter existing walls, doors, and related. Alter existing ceiling system. Install elec. & telephone. Ducts in basement. Alter mech. system to accommodate changes. Add sprinkler system under raised floor.
Sept. 12, 1966	333984 (298698)	Pacific Phone Company		$4,800	Install automatic fire sprinklers in the under floor space of new computer room.
Feb. 28, 1967 (Mar. 7, 1967)	340178 (304380)	180 New Montgomery (A Corporation)		$700	Installation of 25 linear feet metal stud and dry-wall partition. Removal of approximately 24 linear feet Barker type partition.
Feb. 7, 1968 (Feb. 15, 1968)	352227 (316681)	Pacific Telephone & Telegraph Company		$1,850	Remove portions of existing drywall partitions rooms 500, 501, and rooms 560-570. Construct new drywall partitions per plan. Install 2 elect. outlets
Apr. 11, 1968	355742 (318936)	Pacific Telephone & Telegraph Company	Robert Weber	$20,000	Block wall around foundations. Block wall at entrance to rear yard. Remove all glass on exterior of 1st floor and replace
June 7, 1968 (June 18, 1968)	357955 (321198)	Pacific Telephone & Telegraph Company		$2,000	Wall removals and door relocations as noted on plan and restoration.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 14, 1969 (Feb. 28, 1969)	(329530)	Pacific Telephone & Telegraph Company		$1,000	Removal of dry wall partition and installation of 2 doors using fire labelled doors and frames as per plan.
Nov. 25, 1969 (Dec 4, 1969)	377583 (338962)	Pacific Telephone & Telegraph Company		$40,000	Alterations and enlarging the toilet rooms.
Mar. 24, 1970 (Mar. 31, 1970)	381811 (342387)	Pacific Telephone & Telegraph Company		$7,500	Relocate existing partitions, 5th floor (west end).
May 27, 1971	[both numbers are illegible]	Pacific Telephone & Telegraph Co.		$3,000	Addition of three rooms using drywall construction, stud steel + 5/8" sheetrock.
Jan. 24, 1972 (Feb. 10, 1972)	405613 (365575)	Pacific Telephone & Telegraph Company		$30,000	Removal of existing freight elevator and installation of new combination freight and passenger elevator as per plans submitted.
July 26, 1973 (Aug. 1, 1973)	424855 (379968)	Pacific Telephone & Telegraph Company		$20,000	Install sewer ejection system as per plans submitted.
Apr. 28, 1977 (June 7, 1977)	7704243 (423189)	Pacific Telephone Company	Clarence Peterson	$58,000	Drywall painting, electrical, mechanical and carpet.
Nov. 10, 1977 (Dec. 13, 1977)	7711927 (430301)	Pacific Telephone Company	Garretson and Elmendorf	$85,000	Drywall partitioning, computer floor work, painting & electric.
Dec. 19, 1978	7810398 (44520)	Pacific Telephone & Telegraph Co.		$1,000	Install one (1) concrete wheel chair ramp as per plans.
Jan. 24, 1979 (Feb. 2, 1979)	7900853 (444924)	Pacific Telephone & Telegraph Company	Ray Fong	$70,000	Remove inner office walls. Install inner office walls to re-divide space.
Dec. 19, 1979 (Apr. 26, 1979)	7902808 (447726)	Pacific Telephone Company	Bassett and Reiner	$150,000	High rise life safety project, Title 19, S. B. 941. Sprinkler system.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 1, 1979 (Aug. 17, 1979	7908447 (452900)	Pacific Telephone Company	Bassett and Reiner	$20,000	Interior addition.
Sept. 8, 1981 (Sept. 26, 1981	8107872 (475100)	Pacific Telephone & Telegraph Company	Albert F. Roller	$10,500	New wall, HVAC, and electrical.
Nov. 5, 1981 (Nov. 19, 1981	8109561 (176723)	Pacific Telephone Company	Ray Fong	$2,000	Demolition: remove partitions at interior partitions – cabinets and carpets.
Nov. 5, 1981 (Nov. 19, 1981)	8109562 (476725)	Pacific Telephone Company	Ray Fong	$30,000	Install temporary walls to provide private offices.
Feb. 10, 1982 (May 10, 1982	8201044 (481321)	Pacific Telephone & Telegraph Company	Robert M. Morris	$600,000	Demolition of sheetrock wall, acoustical ceilings. New work will be sheetrock walls and acoustical ceilings. Also; electric, plumbing, HVAC and painting.
Mar. 3, 1982	8201595 (479402)	Pacific Telephone Company		[no fee permit]	Manual pull stations, evacuation alarm, exit signs, egress lighting, fan controls, sprinkler alarm, interconnection of existing systems, and elevator smoke sensors.
Sept. 17, 1985 (Sept. 30, 1982)	8207631 (493919)	Pacific Telephone Company	Roller + Massen	$700,000	Alterations to 3rd, 4th, 5th, and 6th floors. Full compliance with handicap (ADA).
Apr. 28, 1983 (May 13, 1983)	8303660 (500891)	Pacific Telephone Company	Roller + Massen	$75,000	Alter existing restrooms to handicap (ADA) as required by code. 3rd, 4th, 5th, and 6th floors.
Nov. 15, 1983 (Dec. 8, 1983)	8311638 (509041)	Pacific Telephone Company	[illegible]	$60,000	Interior partitions, temporary interior walls and doors. Heating, ventilation and plumbing.
Mar. 27, 1984 (Apr. 17, 1984)	8403201 (514252)	Pacific Bell	Roller + Massen	$200,000	Demolition; remove suspended ceiling and partition at inner office walls. Install sections of inner office walls to form private offices. Install new suspended ceilings and new light fixtures. HVAC alteration.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Apr. 17, 1984 (May 8, 1984)	8404064 (515237)	Pacific Bell	Rob Ahern	$25,000	Install additional cooling tower on roof.
Sept. 26, 1985 (Nov. 25, 1985)	8510661 (540046)	Pacific Bell	Roller + Massen Inc.	$93,980	Demolition – new sheetrock walls, electrical, acoustic ceiling, and HVAC modifications (work completed).
Nov. 14, 1985 (541090)	8513034 (541090)	Pacific Bell		$11,000	Demolition of App 150 liner feet sheet rock wall (non-bearing). Remove existing suspended ceiling in basement.
Feb. 4, 1986 (July 1, 1986)	8601261 (550447)	Pacific Bell	John P. Edwards	$160,000	Construct all 150 liner feet of new non-structural walls with sheet metal studs and 5/8" sheetrock. Revamp HVAC system. Revamp bathrooms to comply with Title 24.
May 12, 1986 (June 26, 1986)	8605474 (550263)	Pacific Bell	Gordon Chong + Associates, Inc.	$400,000	Second time tenant improvement. (No change in occupancy).
May 14, 1986 (June 18, 1986)	8605604 (549856)	Pacific Bell		$9,500	Soft demo only. Removal of non-bearing partitions. Shaft wall to remain. App #8605474 for permit already submitted for alteration work throughout 4th floor.
Nov. 14, 1986 (Dec. 4, 1986)	8614286 (558779)	Pacific Bell		$10,000	Minor repair work to include: painting, minor drywall patching, carpet patching, repair/replace electrical receptacles, switches, and plumbing fixtures.
Feb. 26, 1987 (Mar. 4, 1987)	8702556 (563613)	Pacific Bell	Gordon Chong	$15,000	Rework existing demountable partitions and add App 140 liner feet of demountable non-bearing partitions.
Mar. 19, 1987 (June 16, 1987)	8703634 (569921)	Pacific Bell	Gordon Chong	$28,000	Build 2 sheetrock walls – floor to T-bar ceiling metal studs and 5/8" sheetrock. Remove 3 door openings – cut in 2 new door openings.
Apr. 29, 1987 (May 12, 1987)	8705647 (567890)	Pacific Bell	Gordon Chong + Associates	$20,700	Partial reconstruction of 2,000 sq. ft. of basement space. New suspended ceiling,

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					non-bearding partition walls, electrical lighting, power, and mechanical diffuser.
June 1, 1995	9508148			$8,000	Erect an electric sign.
Sept. 20, 1996	9617916 (804179)	AAU		$57,000	Re-roofing.
Dec. 30, 1997	9725902 (840337)	Stephens Institute		$16,000	Install smoke doors at elevator lobby. Modify existing toilets for handicapped (ADA) access.
Dec. 30, 1997	9725905 (840339)	Stephens Institute	Thomas K. Lew	$58,000	Modify existing control panels and hardware in elevator cab. Make alterations to existing classrooms on 3rd floor. Make alterations to 3rd floor toilets for ADA access, Install smoke doors at 3rd floor lobby.
Dec. 30, 1997	9725910 (840342)	Stephens Institute	Thomas K. Lew	$11,000	Modify existing doors at elevator lobby, and modify toilets for handicapped (ADA) access on 4th floor.
Jan. 16, 1998 (July 9, 1998)	9800769 (854170)	Stephens Institute	Thomas K. Lew	$100,000	Modify existing toilets for handicapped (ADA) access. Modify existing issue room and class room. Modify existing ramps for handicapped (ADA) access - ground floor only.
Jan. 16, 1998 (July 9, 1998)	9800770 (854171)	Stephens Institute	Thomas K. Lew	$120,000	Modify existing toilets for handicapped (ADA) access. Modify existing classrooms. Install smoke door at elevator lobby.
Jan. 16, 1998 (July 9, 1998)	9800791 (854168)	Stephens Institute	Thomas K. Lew	$60,000	Modify existing toilets for handicapped (ADA) access. Modify existing classroom basement.
Jan. 23, 1998 (June 19, 1998)	9801266 (852500)	Stephens Institute	Thomas K. Lew	$6,000	Modify existing toilets for handicapped (ADA) access. Install smoke door at elevator lobby.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 23, 1998 (June 19, 1998)	9801268 (852502)	Stephens Institute	Thomas K. Lew	$17,000	Modify existing toilets for handicapped (ADA) access. Install smoke door at elevator lobby.
Jan. 23, 1998 (June 19, 1998)	9801271 (852501)	Stephens Institute	Thomas K. Lew	$19,000	Modify existing toilets for handicapped (ADA) access. Modify one existing private office. Install smoke door at elevator lobby.
Mar. 19, 1999	9905319			$3,000	Renew PA#9801266 for final inspection.
Aug. 6, 1999	9916191 (886758)	Stephens Institute	Thomas K. Lew	$7,000	Modify exit ramp for handicapped (ADA) access. Renew PA #9800769.
Aug. 11, 1999 (Sept. 24, 1999)	9916536 (890385)	Stephens Institute	Thomas K. Lew	$25,600	Install fire doors at floors 1 through 8. Modify existing vertical shafts to 2-hr. rated walls. Seal all partitions at vertical shafts.
Aug. 13, 1999	9916710			$95,000	Furnish and install new Fire Alarm system.
Dec. 22, 1999	9926870			$3,000	Renew expired App #9916191.
Feb. 8, 2000	200002081337	AAU		$6,900	Install new free standing library reception desk on 6th floor.
Apr. 15, 2004	200404151434 (1022503)	S.F. Museum of Modern Art.	Robert McWhirter	$5,500	To erect single faced electric sign mounted on wall. Approved by building owner Dr. Elisa Stephens, President, AAU.
May 18, 2004 (Aug. 10, 2004)	200405184205 (1032738)	AAU		$325,000	Install new fire sprinkler system.
May 16, 2005 (July 11, 2005	200505162548 (1060561)	AAU	Tom Eliot Fisch	$350,000	Fire / life safety upgrades, including new sprinklers, upgraded Fire Alarm, new fire service dampers, new fire pump.
Sept. 12, 2005 (Oct. 21, 2005)	200509122609 (1070262)	AAU		$50,000	New smoke detectors, sprinkler, and strobes.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 29, 2007 (May 29, 2007)	200705292372 (1121383)	Elisa Stephens (AAU)		$8,000	Adding relay for elevator shunt trip. Adding heat detectors within 2' of sprinkler head in elevator penthouse. Fire and life safety upgrades.
Mar. 22, 2010	201003228697 (1216846)	Stephens Institute		$500	Removal of five (5) painted wall signs.
Mar. 31, 2010 (June 4, 2010)	201003319389 (1213458)	Stephens Institute		$100	Removal of two (2) painted wall signs on New Montgomery elevation.
Aug. 9, 2010	201008098336			$3,900	Install 13 upright sprinklers from existing 1" outlets on 1st floor. Install 2 new ceiling pendent sprinklers from existing outlets on 5th and 8th floor.
Aug. 19, 2010	201008199117 (1219317)	AAU	Doug Tom	$10,000	Demolition of four (4) interior partitions on 2nd floor. New partition on 8th floor.
Aug. 24, 2010	201008249493 (1219755)	AAU	Doug Tom	$3,000	6th floor – remove 1 existing interior partition and construct new door opening for Suite #606.
Dec. 15, 2010	201012156777 (1227832)	AAU	Doug Tom	$2,500	Construct one interior partition with entry door on 5th floor to provide new office and accessibility upgrades.
Jan. 12, 2011	201101128260			$15,000	Academy of Art. Basement level remodel - existing café. (No change of use, no exterior work).
July 5, 2012	201207054113			$4,500	Fire sprinkler permit – relocated pendent heads on floors 1 through 8 in telephone room. Add 1 pendent head on 3rd floor.
July 25, 2012	201207255756 (1271775)	AAU	Doug Tom	$570,000	Addition of full height wall to create computer labs on 4th floor. Accessibility upgrades on the 5th floor restrooms.
Jan. 15, 2013	201301157954 (1283848)	The Stephens Institute		$7,500	Addition of 11 speakers/strobes, 2 strobes, and a strobe power supply for the Computer

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					Labs. Remodel on 4th floor. All devices connect on the fire alarm system.
July 25, 2012	201207255757			$25,000	Respond to notice of correct fire hazards work to include fire and Life Safety upgrades on all floors.
Apr. 18, 2013 (Apr. 30, 2013)	201304184868 (1292383)	AAU	Tom Eliot Fisch	$25,000	Install 2-hour fire rated ceiling or apply fire caulk as necessary to achieve 2-hour rating, in telephone rooms on all floors (basement through 8th floor).
Aug. 7, 2013 (Sept. 4, 2013)	201308073748 (1303510)	AAU	Tom Eliot Fisch	$10,000	Modification to existing partition to increase acoustical performance. Remove existing partition to increase storage room space, improving exiting and allowing accessibility and improving life safety.
Dec. 4, 2013	201312043359			$5,000	Legalize for non-electric, single faced, painted wall sign.
Dec. 4, 2013	201312043363			$5,000	Legalize for non-electric, single faced, painted wall sign.
Apr. 1, 2014 (Apr. 8, 2014)	201404012207 (1321429)	AAU		$15,420	Upgrade existing fire sprinkler system at 4th floor. Relocate 5 pendent sprinklers, and add 25 pendent sprinklers.
Sept. 24, 2015	201509247953			$1,500	To abate planning violation, remove painted wall signs at side of building toward Howard Street.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

The subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR).

In addition to being a contributing property in the New Montgomery-Mission-Second Street Conservation District, 180 New Montgomery Street appears CRHR-eligible both individually and as part of a historic district under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 Earthquake Reconstruction period. The property also qualifies individually and as a contributor to a historic district under CRHR Criterion 3, as an intact example of Renaissance Revival-influenced commercial architecture in downtown San Francisco. The corresponding California Historic Resources Code is 3CB.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The subject property retains integrity and remains CRHR-eligible both individually and as a contributor to the historic district. The period of significance is 1920-1933, with the end date corresponding with end of the period of significance for New Montgomery-Mission-Second Street Conservation District.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Symmetrical, rhythmic design composition
- Set flush with the sidewalk
- Renaissance Revival-influenced design
- Eight-story building with oversized ground story
- Parallel bands of rectangular window openings, slightly recessed in wall plane, on each floor
- Concrete construction with stucco finish
- Floral molding and friezes
- Ornamental terra cotta panels, belt course, and cornice
- Original steel casement windows on northwest elevation (Natoma St.)
- Columns and vertical bays on ground-level

Interior

- Overall spatial configuration of main lobby and bank of elevators

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- An interior stair and four new elevators added,1965 (Permit 314176)
- Original storefronts in-filled in 1968 by the Pacific Telephone and Telegraph Company (Permit 355742)
- All windows/glass on first floor removed and replaced, 1968 (Permit 355742)
- Main entry altered to the existing glass double doors with terrazzo on the floor and walls (completed by 1977, according to Charles Page Hall & Associates Survey photograph)
- All windows on the 2nd through 8th floors on New Montgomery and Howard Street replaced (completed prior to 1977, according to Charles Page Hall & Associates Survey documentation)

Post-AAU Alterations:

- The existing signage is square wall mounted signage, unknown date
- In-filled former storefront panels at the corner of New Montgomery and Natoma Street have been painted red
- Security cameras added

INTERIORS

The lobby was remodeled appears to have been largely altered and reconfigured since the property was initially constructed, with changes including the reconfiguration of the elevator core, the addition of an interior stair, lighting, and removal of materials and other decorative features. In addition, AAU installed a new fire sprinkler system and made life safety upgrades; demolished and added interior partitions and a new door to a suite in 2010; and remodeled the basement in 2011 (Permits 200405184205, 201101128260, 201008199117, and 201008249493).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

180 NEW MONTGOMERY (ES-28)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form. Concluding the section is a discussion of Article 11 compliance for the painted in-fill panels.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Signage	Post-1995	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove two most visible signs; leave one corner sign
Security Cameras	Post-1995	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Signage: The project does not comply with Rehabilitation Standard No. 2. The building features a symmetrical, rhythmic design composition of parallel bands of window bays that encircle the building, defining the horizontal axis, with bold corner piers balancing the design. These elements are fundamental to the building's historic character and appearance. Three projecting signs are currently installed on prominent corners of the building. They are incongruous to the character-defining features of the building's design, segmenting what was intended to be a continuous, unified design.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Signage: The project does not comply with Rehabilitation Standard No. 3. The signage introduces an element that is not reflective or representative of the property's historical use and appearance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Signage: The project does not comply with Rehabilitation Standard No. 5. For each of the three signs, the project involved the installation of L-shaped mounting brackets, which are bolted to the masonry of the exterior walls. Each L-shaped mounting bracket is fastened to the exterior walls with bolts that perforate the masonry. The recommended approach in the SOIS for installing signage is to utilize mortar joints or the jamb of noncontributing storefront component (rather than character-defining masonry). The project is likely to have resulted in damage to character-defining wall materials incurred as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and the property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Signage: The building's symmetrical, rhythmic design is character-defining. The projecting signs interrupt the two-part vertical design as well as the horizontal banding of fenestration across all visible elevations of the building. In addition, the signs interrupt the bold, unadorned corner piers of the building. In this way, the signs add a highly visible element that is not compatible with the historic character, materials, and features of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the projecting signs may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

ARTICLE 11 ANALYSIS

180 New Montgomery Street is a Category IV ("Contributory") property within the New Montgomery-Mission-Second Street Conservation District.

Article 11, Appendix F, Section 6 of the San Francisco Planning Code describes the overall character and scale of the New Montgomery-Mission-Second Street Conservation District. Throughout the district overall, contributors are divided into bays that establish a cohesive, rhythmic character along the street line. The subject property is consistent with this overall character, as reflected in the building's symmetrical, rhythmic design composition, repeating window bays that span the building on each floor. These character-defining design elements are the focus of the following Article 11 compliance analysis.

Projecting Signs

Per the applicable guidelines for projecting signs within Conservation Districts (including in Article 11 and Article 6), the scale and placement of signs shall be appropriate to the elements of the building.[36] Installed on prominent, highly visible corners, the three projecting signs interrupt the symmetrical, rhythmic design of the building, segmenting what was intended to be a continuous, unified composition. The three signs are considered to be in noncompliance with applicable guidelines for projecting signs in Article 11 Conservation Districts.

In addition, the signs appear to be internally illuminated signs with plastic lenses, supplied power via conduit that is exposed and attached to the face of the building. Under Article 11 guidelines, internally illuminated signs are not permitted (the guidelines call for either indirectly or externally illuminated lights), and conduit must be concealed rather than attached to and left exposed on the face of the building, the sign structure, or the sign itself.[37]

In terms of location, the signs were installed above the storefront openings, extending just above the ground story. According to Article 11 guidelines, projecting signs may not be located above the window sill of the first residential floor.[38] The location of the signs appears to be in noncompliance with Article 11 guidelines.

Moreover, the installation of signs on properties in Conservation Districts is to be undertaken in such a way that "avoids damaging or obscuring any of the character-defining features" of the property and that "allows for their removal without adversely impacting the exterior" of the building.[39] The L-shaped mounting

---

[36] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," November 2012, 14.

[37] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 11-13.

[38] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 14.

[39] *DRAFT Sign Controls, Planning Code Article 6,* "Requirements for Signs within Article 11 Conservation Districts," 11-13.

brackets and bolts installed in the exterior masonry walls appear to be in noncompliance with these requirements.

Overpainting of Exterior In-Filled Panels

In addition, several in-fill panels over former storefronts have been painted bright red. While paint color is generally reversible and not included in SOIS compliance analysis, the bright primary color is in noncompliance with the provisions of Article 11 for the New Montgomery-Mission-Second Street Conservation District. Article 11, Appendix F, Section 7: "Traditional light colors should be used in order to blend in with the character of the district. Dissimilar buildings may be made more compatible by using similar or harmonious colors, and to a lesser extent, by using similar textures."

RECOMMENDATIONS

The security cameras comply with the SOIS, and no design modifications are recommended at this time.

The projecting signs do not comply with the SOIS or Article 11 guidelines. With three large projecting signs, placed just above the ground story, the signs segment and obscure what was intended to be a continuous, unified design. In order to facilitate compliance, it is recommended that the two projecting signs on the most visible elevations of the building (i.e., the sign at the center of the building and one other sign) be removed, and the original surface patched and repaired where necessary and refinished to match existing in materials and appearance.

In order to facilitate compliance with Article 11 guidelines, the one remaining sign would ideally be designed, installed, and located in such a way that it meets the specifications enumerated above, with respect to illumination, placement, and lighting.

It is also recommended that the red overpainted panels be returned to a color in keeping with the recommendations of Article 11 for the New Montgomery-Mission-Second Street Conservation District. Article 11, Appendix F, Section 7: "Traditional light colors should be used in order to blend in with the character of the district. Dissimilar buildings may be made more compatible by using similar or harmonious colors, and to a lesser extent, by using similar textures."

1916 OCTAVIA BOULEVARD (ES-9)

APN: 0640011

Construction Date: 1898

Architect/Builder/Designer: Unknown

Previous Status: Category B

Previous CHR Status Code: N/A

Date of Past Surveys/Evaluations: N/A

AAU Acquisition Date: 1995

Current CHR: 6Z (ineligible)

Historical Resource under CEQA? No

Project Modifications Recommended? No

Summary of Evaluation Results: 1916 Octavia Street does not appear CRHR eligible under Criteria 1, 2, or 3, either individually or as a part of a historic district. In terms of Criterion 1, the property is not associated with a significant event or pattern of development (such as early residential settlement in Pacific Heights), either individually or as a contributor to a historic district.

The residence is associated with three pioneers of San Francisco industry: Adolph Mack, president of Mack & Company, a wholesale drug company; Eugene de Sabla Jr., cofounder and first president of Pacific Gas & Electric (PG&E); and Max J. Brandenstein, founder of MJB Coffee Company. Regarding an association with Adolph Mack, Mack resided only briefly in the property (1899-1902). Research did not reveal that Mack, nor his company Mack & Company, are significant in local, state, or national history. Regarding an association with Eugene de Sabla Jr., though 1916 Octavia Street was his primary residence when he cofounded PG&E in 1905, de Sabla lived in the house only briefly (1902-1906). It appears to have been a temporary home while he commissioned a mansion for his family in San Mateo. Regarding an association with Max J. Brandenstein, the Brandensteins lived at 1916 Octavia Street from 1909 until his death in 1925, a period during which he was president of MJB Coffee Company. While MJB Coffee was a well-known San Francisco company, it was at least the third company to produce or distribute coffee in San Francisco. By the time MJB Coffee was founded, the coffee industry had been developing for almost half a century. Furthermore, unlike Hills Brothers, which transformed the coffee industry by introducing the innovative method of vacuum-packing beans, MJB does not appear to stand out as significant among the other early producers.

The residence at 1916 Octavia Street is associated with a locally significant architect, Frederick H. Meyer. However, this is not an outstanding example of Meyer's work nor is it a distinguished or noteworthy example of an architectural style, method of construction, or property type.

Therefore, the building at 1916 Octavia Street does not appear eligible for listing in the CRHR.

Complete Historic Resource Evaluations (HREs) for Category B properties (including 1916 Octavia Street) is presented in the accompanying appendix for historic resources.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Two-story addition to south elevation added between 1899-1905 (Sanborns)
- Wood parapet added to 1899-1905 two-story addition post-1968 (visual observation and 1968 Junior League Survey)
- Replacement of original double-hung windows with brown vinyl windows and jalousie windows on ground floor of west elevation between 1968 and 1995 (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Canvas awning and security fence added (awning legalized in 2011, BPA #201105095670)
- Lighting and security upgrades

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Detached garage added in 1930 (Permit 183347)
- Two-story addition to east elevation between 1899 and 1905 (Sanborns)
- Single-story addition, further extending footprint from 1899-1905 addition, to east elevation between 1929 and 1950 (Sanborns)
- Replacement of original double-hung windows with brown vinyl windows and jalousie windows on ground floor of west elevation between 1968 and 1995 (AAU, Memo to SWCA, 2/2/2016)
- Concrete ramps at rear entry on east elevation (AAU, Memo to SWCA 2/2/2016)

Post-AAU Alterations:

- Lighting and security upgrades
- Awning on rear, single-story elevation, and security gate to rear yard
- Reroofing (Permit 9519060)

INTERIORS

- Fire sprinkler system upgrades and installation of new fire alarm system in 2004 (Permit 0040163411 and 200406237190)
- Addition of guard rails to various locations in 2009 (Permit 200908185083)
- Kitchen improvements (Permit 8413407)
- Replacement of bathroom wall in 2009 (Permit 200907152700)

1055 PINE STREET (ES-17)

APN: 0275009

Construction Date: 1910

Architect/Builder: William L. Schmolle

Previous Status: Category A

Previous CHR Status Code: 2S2 (Individual property determined NRHP eligible through Section 106/SHPO consensus in 2002)

Date of Past Surveys/Evaluations: 2002

AAU Acquisition Date: 2000

Current CHR Status Code: 2S2; 3CS

Applicable Criteria: A/B/C (NRHP); 1/2/3 (CRHR)

Historical Resource under CEQA? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

Located in Nob Hill, 1055 Pine was originally constructed as a mid-rise hospital building in 1910. T-shaped in plan, the building occupies a sloped, rectangular lot. The primary elevation faces Pine Street, with the entrance set flush to the sidewalk, elevated on marble-clad foundation. A driveway on the western side of the lot leads to the rear of the building.

The building displays a symmetrical design composition and Classical Revival-inspired ornamental program. The building is capped with a flat roof, which terminates in a decorative cornice and shallow overhanging eaves, accented beneath with a continuous dentil course. Original features on the façade include the rhythmic fenestration pattern (though the glazing itself is nonoriginal), with bands of windows defining each floor, separated by spandrel panels. The two-part vertical design composition, with uniform façade treatment through the first five stories, and a more articulated ornamental program and detailing on the top story, is also original to the building.

Figure 91. 1055 Pine Street. (Source: SWCA)

The first floor on the primary elevation displays a ground-level polished red granite base (a nonoriginal material) and a recessed main entry with a polished red granite surround (also nonoriginal). Fenestration consists of bands of aluminum-frame awning casement windows. Each window has a clearly defined sill and lintel. The fifth story is delineated by a decorative projecting band below and cornice above. A series of aluminum-frame awning-casements, flanked by two bay windows, extend across the fifth story. A fire stair has been added to the eastern corner of the elevation with two personnel doors leading to the sidewalk. A rolling metal gate has been installed in front of the driveway on the western side of the lot.

The full-length marble piers spanning the building, as well as the red polished granite and marble at the building foundation and entrance, represent alterations to the original design. In addition, the original wood windows were removed and replaced in 1966, in work overseen by San Francisco architect George Adrian Applegarth. (A Bay Area native born in Oakland in 1875, Applegarth was a long-time resident and practitioner in San Francisco. He designed numerous commissions throughout San Francisco during his long career, including residential, commercial, and institutional designs.)

Figure 92. 1055 Pine Street, detail, first and second floors of the primary elevation. The full-length marble piers spanning the building, as well as the red polished granite and marble at the building foundation and entrance, represent alterations to the original design. (Source: SWCA)

Figure 93. 1055 Pine Street, detail, fire stair case addition on the primary elevation. (Source: SWCA)

The treatment of the façade is mirrored on the east and west elevations, in terms of materials and fenestration patterns. Toward the south, the building extends in a stepped-in wing with aluminum-framed awning casements. Side elevations reveal areas with board-form concrete, covered in stucco. The south and rear elevations have two sets of stacked bay windows with a central door on each floor, connected by a fire escape. Side elevations displays fenestration in a variety of patterns and configurations, including rectangular and square aluminum awning casements, double-hung, and fixed windows.

Figure 94. 1055 Pine Street, view of the primary and stepped-in western elevations. (Source: SWCA)

Figure 95. 1055 Pine Street, northeast perspective, west elevation. (Source: SWCA)

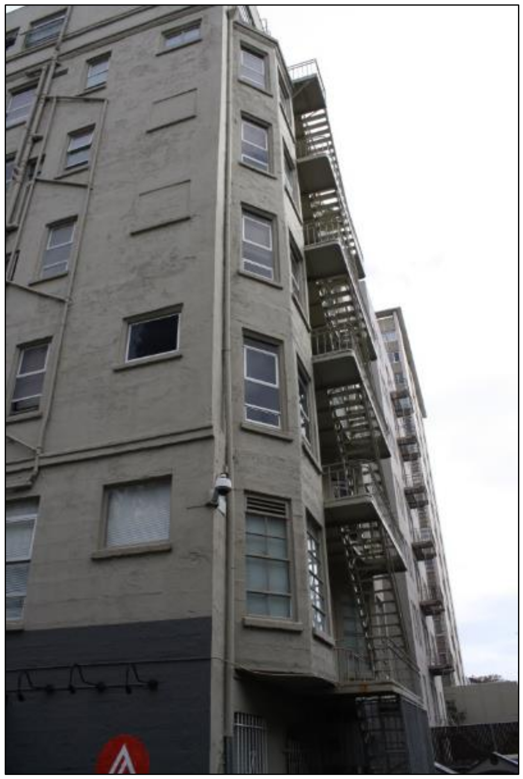


Figure 96. 1055 Pine Street, northeastern perspective, southwest corner. (Source: SWCA)

Numerous alterations have occurred throughout the interior of the building. Original features remaining on the interior include the marble staircase with metal banister and wood hand rail. On the upper floors, fluorescent lights, tile floors, and new doors have been installed.

Figure 97. Interior view of the stair of subject property. (Source: SWCA)

SITE HISTORY

The property was originally constructed in 1910 as the McNutt Hospital, which was owned and operated by Dr. William Fletcher McNutt. A pioneering medical professional in San Francisco, McNutt was "a gold rush immigrant to San Francisco, and a distinguished leader" in San Francisco's medical profession at the time:[40]

> His prominence in the community is expressed by his construction of this relatively large hospital building as a privately owned facility, rather than one supported by a larger foundation or institution. Dr. McNutt, elderly by the time this hospital was erected, was well known and respected for his 'old time' manners and wardrobe.[41]

A native of Canada, McNutt trained at Harvard and the University of Vermont; before moving to San Francisco, he served in the Civil War as a member of Union Navy forces.[42] After moving to San Francisco, Dr. McNutt practiced in the city for nearly 60 years, from 1868 until his death in 1924.[43] Prior to the 1906 earthquake and fire, he owned a hospital at Sutter Street and Van Ness Avenue; however, as the 1906

[40] Mellon, Knox, State Office of Historic Preservation, 26 June 2002, Letter to Kenneth Spisak, Environmental Coordinator, Cingular Wireless. On file with Northwest Information Center.

[41] Ibid.

[42] Ibid.

[43] Ibid.

earthquake ravaged the city, the hospital was dynamited as "part of attempts to stop the post-earthquake fire."[44]

The McNutt Hospital functioned as a privately owned institution only for a short period of time, until it went bankrupt in 1912. McNutt sold the hospital in 1915 to a consortium of local doctors, and at least a portion of the building continued to serve its original purpose until the 1970s. By this time, the facilities were adapted and 1055 Pine Street (at least in part) an independent living facility, operated by St. Anthony Foundation, which remained in the building until the late 1990s.

The building served its original purpose for decades, though it appears to have changed ownership on several occasions. It also appears that multiple tenants offered medical-related services from the building over the years. By 1917, the address served as the location for Fairmont Hospital. By 1925, it had become the Morton Hospital, owned by Dr. A.W. Morton (as of 1917, Morton Hospital had occupied space at 775 Cole Street). As of 1948, 1055 Pine Street housed the St. John Hospital. In the postwar period, two institutions occupied space in the building: the San Francisco Polyclinic Hospital, as early as 1952 and through at least 1974, and the Callison Memorial Hospital, operated by Dr. F.W. Callison, which occupied space in the building as early as 1959 and through 1966. In 1966, a $65,000 remodel carried out by architect George Adrian Applegarth was commissioned by the Callison Memorial Hospital. The independent living facility, St. Anthony Foundation, occupied the building from the 1970s through the late 1990s.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

Figure 98. 1910 rendering of 1055 Pine Street, the McNutt Hospital. (Source: *San Francisco Call*)

[44] Ibid.

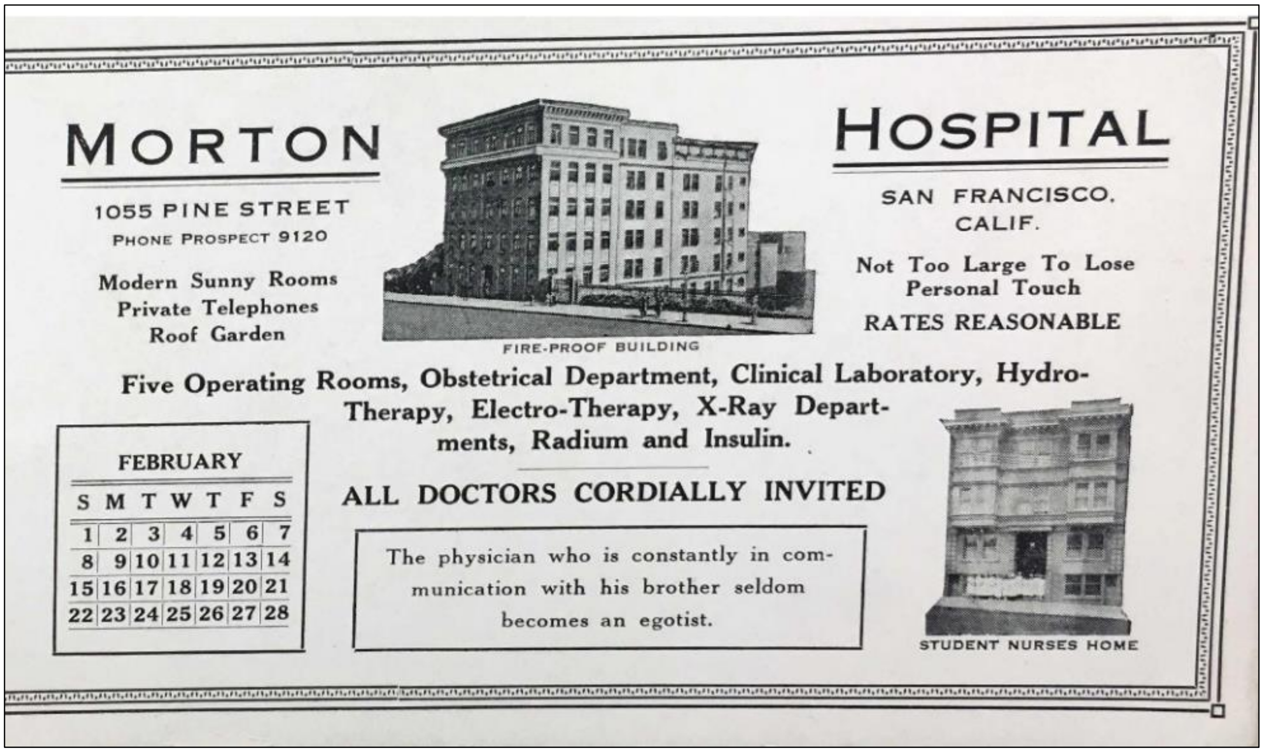


Figure 99. 1925 advertisement, Morton Hospital, 1055 Pine Street, promising "modern sunny rooms" and a roof garden. The roof garden was enclosed in Source: *Polk's Crocker-Langley San Francisco City Directory,* 1925 (San Francisco, CA: R.L. Polk and Company).

Figure 100. This close-up shows the general character (including a clearly articulated two-part vertical design) of the original building, as compared with the extant façade. Source: *Polk's Crocker-Langley San Francisco City Directory,* 1925 (San Francisco, CA: R.L. Polk and Company).

Figure 101. 2002 image of 1055 Pine Street. (Source: San Francisco Planning Department)

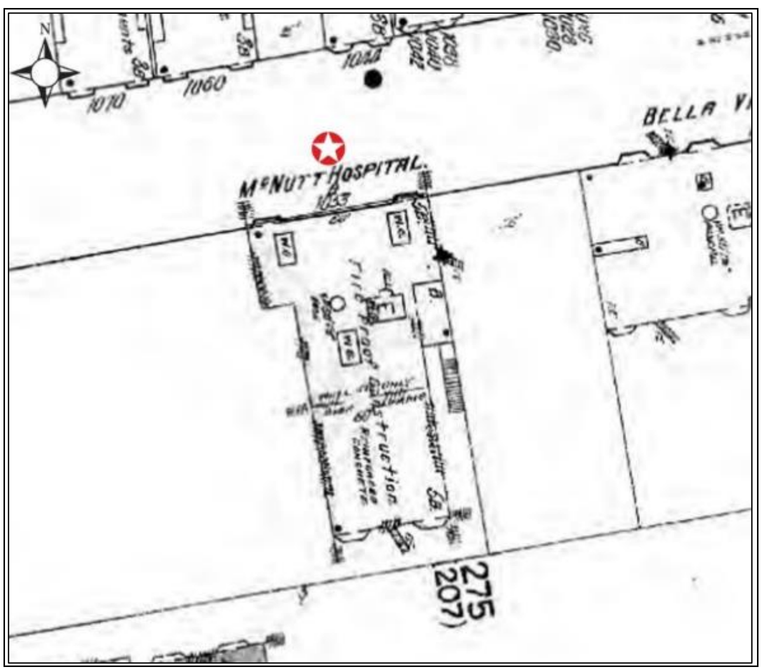


Figure 102. 1913 Sanborn Fire Insurance Map, 1055 Pine Street. (Source: Environmental Data Resources)

Figure 103. 1938 Aerial Photograph, 1055 Pine Street. (Source: Environmental Data Resources)

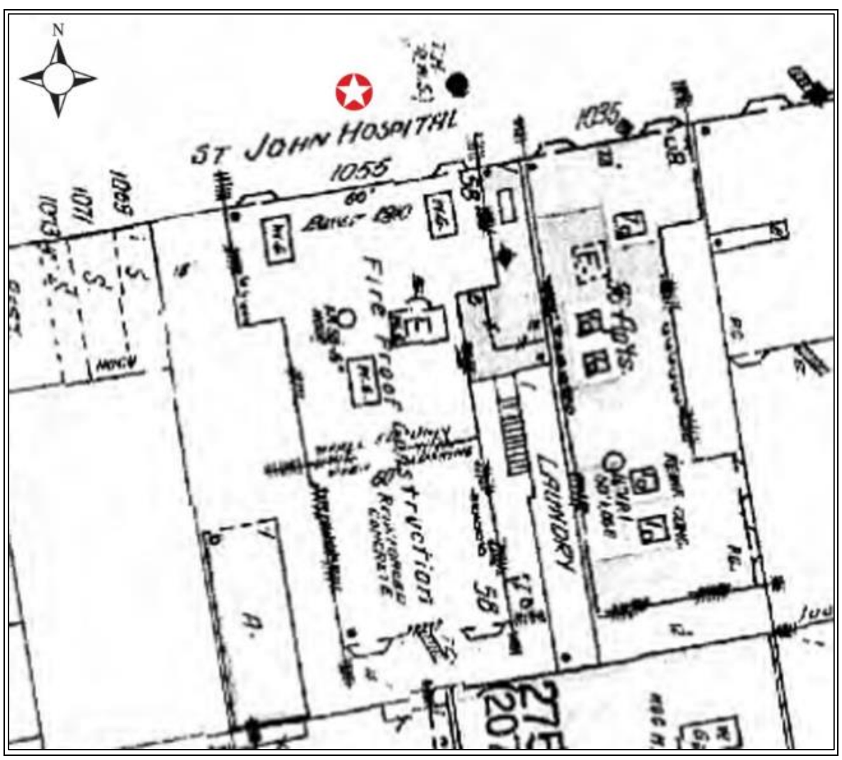


Figure 104. 1948 Sanborn Fire Insurance Map, 1055 Pine Street, now St. John Hospital. (Source: Environmental Data Resources)

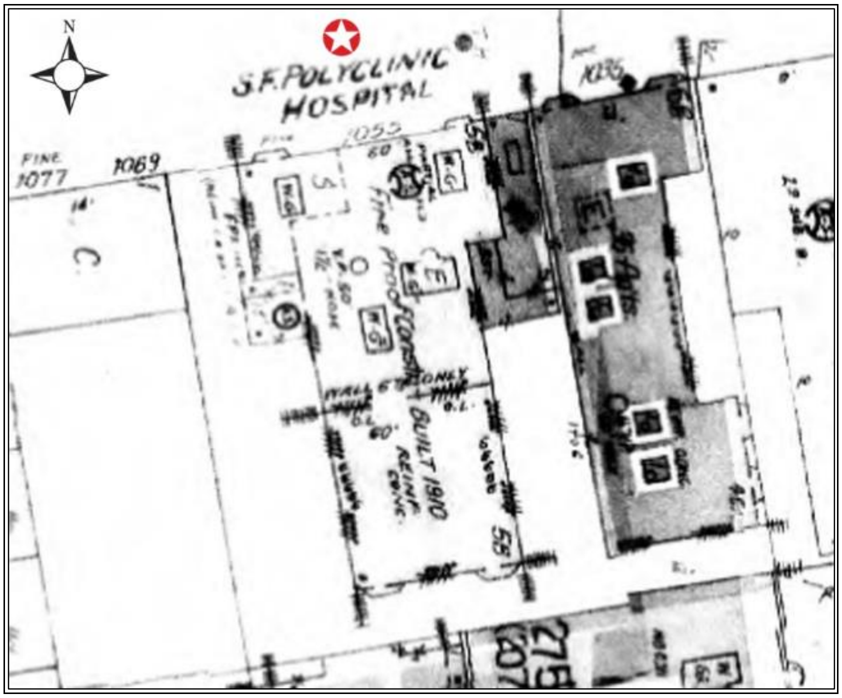


Figure 105. 1974 Sanborn Fire Insurance Map, 1055 Pine Street, listed as San Francisco Polyclinic Hospital. (Source: Environmental Data Resources)

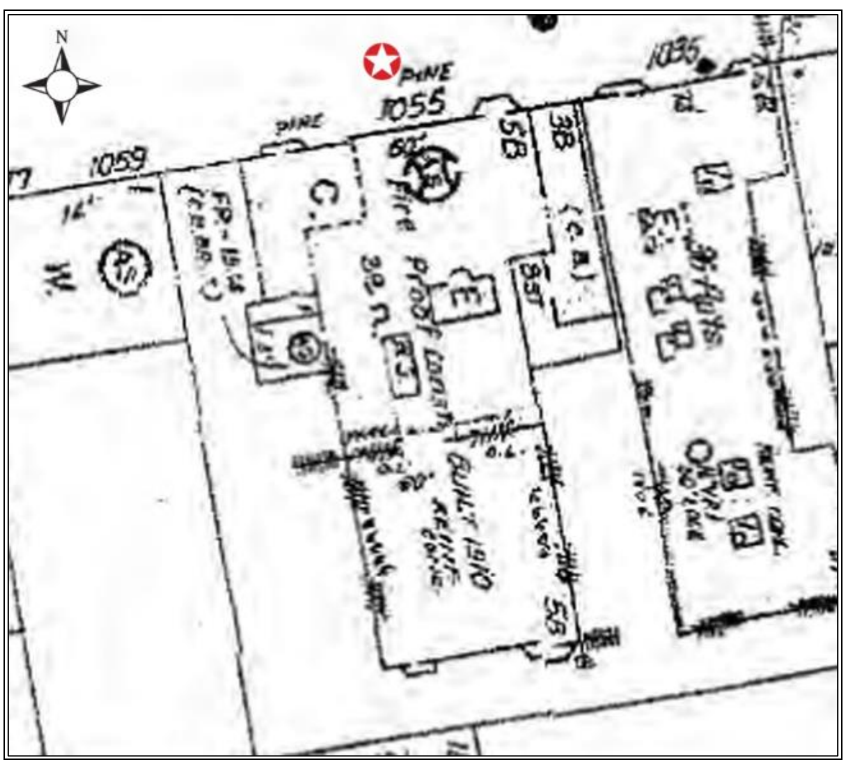


Figure 106. 1999 Sanborn Fire Insurance Map, 1055 Pine Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 1055 PINE STREET / APN: 0275009

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 18, 1917	74445	Eaismans Hospital (illegible)		$15	Erection of shed for storing automobile to be constructed of galvanized iron.
Nov. 23, 1917	79451	Eaismans Hospital (illegible)		$30	To build a one-story frame structure
Apr. 16, 1918	81384	Eaismans Hospital (illegible)		$50	Extend roof of shed on west side of hospital to join hospital building. (Roof used for ambulance driveway).
Apr. 16, 1925	137872	Dr. A. W. Morton		$1,500	Build 11 ft. by 36 ft. laundry building at rear of 1055 Pine Street
June 17, 1926	151495	A. W. Morton		$500	Enlarge boiler room (basement walls and floors).
June 20, 1926	151574	Morton Hospital		$1,470	Install single faced roof sign as per blue prints.
Jan. 26, 1927	157989	A. W. Morton		$500	Dividing Ward #502 north-west corner of building, into three private rooms, as per sketch attached. Plaster board material to be used.
Mar. 6, 1929	176943	Dr. A. W. Morton		$500	Replacing one boiler, and extending boiler room to the street. Ceiling and walls to be concrete. Entrance to be known as 1045 Pine Street.
July 9, 1934	7449 (71686)			$35	Single faced sign to be attached to building facing street.
Jan. 2, 1952	141348 (128479)	San Francisco Polyclinic Hospital		$95,000	General overhauling. New plumbing, heating, and electrical work.
July 2, 1954	166660 (150161)	C. R. Haley		$3,000	New retaining walls on private parking lot as shown on plans.
Aug. 2, 1954	167461 (152864)	Polyclinic Hospital		$4,500	Remodel entrance to drug store as per plans.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct 18, 1955	179821 (161102)	Polyclinic Hospital		$23,500	Install new partitions, doors, toilet rooms and fixtures; electrical wiring and fixtures, all as shown on drawings.
Sept. 10, 1958	2148458 (192343)	Polyclinic Hospital		$300	Erect (electric) sign.
June 24, 1959	225237 (201831)	Dr. F. W. Callison		$25,000	Existing 5th floor partially complete. Proposed work completes 5th floor by addition of solarium, lounges, and storage. Steel frame with plaster partitions.
Oct. 18, 1961	256570 (200272)	Polyclinic Hospital		$5,000	Close in open deck on 5th floor with roof and sidewalls. Change exit doors. Extend fire escape.
Dec. 20, 1961	259345 (232297)	Polyclinic Hospital		$20,000	Interior plastering, installation of partitions. Installing floors, installing toilet. Installing steamer room. Electrical and mechanical work to be performed.
June 17, 1964	300256 (268559)	Polyclinic Hospital		$75,000	Relocation of various departments (see org. bldg. permit) Remodel ambulance entrance. Remodel and relocate surgical suites with construction of new entrance to surgery. Installation of doors between entrance and surgical suites.
Oct. 28, 1964	307008 (274091)	Polyclinic Hospital		$10,000	Installation of automatic fire sprinkler system.
Nov. 4, 1964	307260	Polyclinic Hospital		$2,100	To replace present incinerator and install Amodelssn-200 Multiple chamber unit; to meet Bay Area requirements.
June 3, 1966	330715 (295370)	Callison Memorial Hospital	George Adrian Applegarth	$65,500	Aluminum windows to replace wooden windows. Water proofing and painting of exterior, scaffolding.
July 13, 1966	332226 (298191)	Callison Memorial Hospital		$1	This application is filed only for the purpose of deleting sprinkler requirements shown on

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					building permit #295370 that was issued on 6/14/1966.
May 10, 1976	441941 (410282)	St. Anthony Foundation		$71	Other structures on property will be demolished. Existing hospital building will be used only for residential (hotel) use.
June 6, 1979	7905752 (450068)	La Galleria Associates	Kaplan & McLaughlin	$20,000	Under pinning of existing retaining wall along south property line.
Mar. 10, 1980	8002381 (463066)	Foxcroft Associates	Kaplan & McLaughlin	$20,000	Under pinning and shoring of existing retaining wall along south property line.
Feb. 10, 1982	8201046 (979320)	St. Anthony Foundation	John G. Minton, AIA	$3,000	Remove rusted skylight roofs above elevator shaft and two (2) roof skylights. Close over with metal corrugated steel decking and roof over.
Mar. 5, 1982	8201667 (492861)	St. Anthony Foundation	John G. Minton	$350,000	Alterations to 1st and 5th floors to add sleeping rooms. Install new smoke-proof tower stairway.
May 18, 1983	8304387 (505473)	St. Anthony Foundation	John G. Minton	$85,000	Add new showers, lavatories, and tubs at existing bathrooms on 4th, 3rd, and 2nd floors.
May 7, 1997	9708259 (821101)	St. Anthony Foundation		$950	Install two (2) replacement windows rear.
Feb. 7, 2000	200003073670			$1	Clarify history of existing building. The building currently has 59 units of group housing (not "dwelling units") (See original building permit for more info).
Dec. 6, 2000	200012067337	Elisa Stephens	Tom + Aguila Architects	$10,250	Installation of new metal chain-link fence, along south property line.
Dec. 8, 2000	200012087494 (928380)	AAU	Tom + Aguila	$45,000	Remodel of existing dormitory building, include new common shower rooms (basement 1st, 2nd, 3rd, and 8th floors).
Sept. 30, 2003	200309306141 (1023636)	AAU		$50,000	Modify existing partial sprinkler system to fully sprinklered building (7 floors total).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 13, 2003	This permit was: CANCELLED 200311130164	Elisa Stephens Trust		$20,500	Provide fire monitoring system for automatic sprinkler system. Per CAB 310.10 EX.2-B. Remove existing fire alarm system. Complying with NOV.
June 23, 2004	200406237195 (1031151)	AAU		$82,000	Installation of new Fire Alarm system.
Oct. 8, 2004	200410086392 (1038510)	Elisa Stephens		$1	Renew PA #200012067337 for final.
May 2, 2006	200605020435 (1085449)	AAU		$4,000	Addition 1 heat detector, 1 monitoring module, 2 relay modules for elevator recall.
Mar. 31, 2010	201003319390 (1213459)	Elisa Stephens Trust		$100	Removal of one (1) horizontal sign.
July 13, 2010	201007136465 (1216298)	AAU		$1,600	Unit #312, #317, #401, #417 – replace shower valve to comply with NOV #201050893 dated 6/15/2010.
July 13, 2010	201007136473 (1216300)	AAU		$1,200	Unit #504, #505, and #505– replace shower valve to comply with NOV #201050893 dated 6/15/2010.
July 13, 2010	201007136474 (1216301)	AAU		$1,200	Unit #501, #502, and #503– replace shower valve to comply with NOV #201050893 dated 6/15/2010.
July 13, 2010	201007136476 (1216302)	AAU		$1,200	Unit #201, #017, #306, and #315 – replace shower valve to comply with NOV #201050893 dated 6/15/2010.
Sept. 21, 2010	201009211307			$25,000	Improvements at basement level dining area. New ceiling and changes to door swings.
May 22, 2013	201305207350 (1294382)	AAU		$6,500	To comply with Ord. 029-13 only; installation of grab bars in SRO: 1 on 1st floor, 2 on 2nd floor, 2 on 3rd floor, 4 on 4th floor = 9 total.
June 10, 2014	201406107946			$1	Legalize existing number of housing units.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

In 2002, 1055 Pine Street was formally determined eligible for the NRHP, through the Section 106 review process, and subsequently listed in the CRHR. The property was found to qualify under all three NRHP criteria: for its association with the history of medical facilities in San Francisco (Criterion A); for its association with Dr. William Fletcher McNutt, "a prominent physician, faculty member, and distinguished leader in the local medical profession as well as business and politics" (Criterion B, period of significance, 1910-1915); and for its "artistic design and use of reinforced concrete" (Criterion C).[45]

The property is also CRHR eligible as an early institutional/medical facility constructed in the immediate post-1906 earthquake and fire Reconstruction era in Nob Hill (Criterion 1) and as a Classical Revival-style institutional/medical facility (Criterion 3). When constructed in 1910, this hospital replaced the owner's earlier, also privately owned facility, which was purposefully dynamited during the 1906 fire in an attempt to slow the fire's advance. The period of significance for both criteria spans the building's service as a Nob Hill hospital facility (1910 to circa 1970).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990).

At the time of the Section 106 process, resulting in a determination of NRHP eligible for the property (and subsequent CRHR listing), the alterations noted in this study had already been carried out and were disclosed at that time (these included the nonoriginal aluminum-frame windows, full-length, vertical marble piers on the façade and marble foundation/entrance sheathing). No significant alterations appear to have occurred in the intervening years, since the 2002 finding. The subject property retains integrity and remains NRHP- and CRHR-eligible.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Mid-rise height, rectilinear building plan, set flush with the sidewalk
- Rhythmic, symmetrical design composition
- Flat roof with no eaves on side elevations
- Shallow overhanging eaves, trimmed with Classical Revival-style cornice, accented with dentil course
- Articulated upper story, with flanking bay windows
- Fifth floor delineated by a projecting, ornamental band below & cornice above

Interior

- Spatial configuration/relationship of public and private spaces
- Decorative stair rail and marble stairs

[45] Mellon, Knox, State Office of Historic Preservation, 26 June 2002, Letter to Kenneth Spisak, Environmental Coordinator, Cingular Wireless. On file with Northwest Information Center.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Replacement aluminum windows, 1966 (Permit 330715)
- Replacement metal door, Pine Street; secondary entry installed in 1954, for remodel of a drug store for the Polyclinic Hospital (Permit 167461)
- Smoke-proof tower stairway added to the east elevation in 1982 (Permit 8201667)
- Red polished granite and marble added to the main elevation. Although no permit was issued for this work, building permits suggest it was associated with either the 1954 remodel for the drug store or the 1966 remodel, prior to AAU's acquisition of the building in 2000 ($65,500, carried out by architect George Adrian Applegarth; AAU, Memo to SWCA, 2/2/2016).

Post-AAU Alterations:

- Security camera added
- Security fence installed in 2000 (Permit 200012067337)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Replacement aluminum windows installed in 1966 (Permit 330715); two aluminum replacement windows installed on rear elevation in 1997 (Permit 9708259)
- A small brick, one-story addition with a flat roof and aluminum double doors added on west elevation between 1950 and 1974 (Sanborn Fire Insurance Maps)

Post-AAU Alterations:

- Security cameras added
- A small awning and bordering light fixtures installed at side door on west elevation (AAU, Memo to SWCA, 2/2/2016)

Dates inconclusive or awaiting further data:

- Various replacement (metal) single- and double-doors; in-filled door and windows, east elevation (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

The interior appears to have been largely altered and reconfigured since the property was initially constructed. Alterations have modified the original partitions and door locations. Additional alterations include the installation of fluorescent ceiling lights, the addition of common showers, installation of new materials, and installation of new doors. In addition, AAU installed a new fire alarm system and modified an existing partial sprinkler system to full operation (Permits 200406237195 and 200309306141).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

1055 PINE STREET (ES-17)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Camera	Post-2000	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Security Fence	2000	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
SECONDARY ELEVATIONS Known/Visible Exterior Alterations												
Security Camera	Post-2000	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features.

Security Fence: The project complies with Rehabilitation Standard No. 2. The security fence does not obscure any of the building's character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Security Fence: The project complies with Rehabilitation Standard No. 3. The fencing is clearly modern and does not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Security Fence: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of security cameras resulted in minimal damage to historic wall materials, and the property retains its distinctive materials, features, and finishes.

Security Fence: The project complies with Rehabilitation Standard No. 5. The installation of the security fence resulted in minimal damage to historic wall materials, and the property retains its distinctive materials, features, and finishes.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the* *new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Security Fence: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Security Fence: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Security Fence: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Security Fence: The project complies with Rehabilitation Standard No. 9. The security fence is compatible in scale and appearance, and does not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Security Fence: The project complies with Rehabilitation Standard No. 10. The security fence is compatible in scale and appearance, does not obscure character-defining features, and its removal would not impair the essential form and integrity of the property.

RECOMMENDATIONS

The projects both comply with the SOIS; no design modifications are recommended at this time.

During site inspections, however, damage and holes were noted in the masonry of the façade's exterior walls. It is recommended that, where damage to character-defining features and materials has occurred, or where original features have areas of deterioration (including due to wall perforations or water damage), these areas be repaired and refinished to match existing in materials and appearance, and in compliance with the SOIS.

1069 PINE STREET (ES-16)

APN: 0275008

Construction Date: 1921

Architect/Builder: O'Brien Brothers, Inc. (Architect); J. Martinelli (Builder)

Previous Status: Category B

Previous CHR Status Code: N/A

Date of Past Surveys/Evaluations: N/A

AAU Acquisition Date: 2000

Current CHR Status Code: 6Z

Preliminary Evaluation Results: 1069 Pine Street does not appear eligible for the CRHR under Criteria 1, 2, or 3. In terms of Criterion 1, the property does not reflect significant development trends in this part of Nob Hill. The building at 1069 Pine Street reflects the theme of significance related to Reconstruction-era expansion, "Neighborhood Commercial Expansion, 1906-1929," described in the 2013 *Draft Neighborhood Commercial Buildings Historic Context Statement*. However, in light of the eligibility standards described in the context statement, the property does not retain the historic integrity required to convey significance.

The building at 1069 Pine Street was associated with many businesses and individuals from 1921 through 1953. Research did not reveal that any of the businesses or individuals associated with the building rise to a level of significance required for listing in the CRHR under Criterion 2.

The building at 1069 Pine Street was designed by notable San Francisco architects, O'Brien Brothers. O'Brien Brothers completed a wide range of commissions throughout San Francisco between 1907 and 1935. They are best known in San Francisco for their many auto-related commissions, including excellent extant examples of auto showrooms and garages (e.g., 66 Page Street, 1641 Jackson Street, and 525 Jones Street). As a ubiquitous, 1920s commercial building, the building at 1069 Pine Street is not a distinctive or outstanding example of O'Brien Brothers' work, nor an outstanding or unique example of commercial architecture in San Francisco.

Therefore, the building at 1069 Pine Street does not appear eligible for listing in the CRHR under Criteria 1, 2, or 3.

Complete Historic Resource Evaluations (HREs) for Category B properties (including 1069 Pine Street) is presented in the accompanying appendix for historic resources.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Transom windows covered (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Storefront enclosed in 2001 (AAU, Memo to SWCA, 2/2/2016)
- ADA accessible entrance added in 2001 (Permit 200104247629)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Infill or boarding of ground-level windows with plywood (AAU, Memo to SWCA 2/2/2016)
- Partial replacement of ground-level doors (AAU, Memo to SWCA 2/2/2016)

INTERIOR

Interior converted to single, open space between 1950 and 1974 (Sanborns); with the exception of wood columns and piers, no original character-defining features are extant.

DISCUSSION AND RECOMMENDATIONS:

AAU facilities staff indicates the storefronts on the main evaluation were infilled by AAU in 2001 and subsequently legalized by permit in 2010 (AAU, Memo to SWCA 2/2/2015). However, a review of permits on file with San Francisco Department of Building Inspection reference unspecified improvements and do not definitively show that the in-filling of the storefronts was covered by permit. Archival research to date has failed to identify any photographs depicting the original appearance of the storefronts or original materials/façade design configuration, or the appearance of the façade at the time of AAU acquisition. Therefore, the possibility exists that the change carried out by AAU resulted in a loss of integrity for the property. Had the storefronts been intact, the property might have qualified under CRHR Criterion 1 as an exemplification of neighborhood commercial development in Nob Hill.

The project completed by AAU may have resulted in the removal, damage, and/or destruction of extant character-defining features and would therefore not comply with the SOIS. Should it be determined that the property retained those character-defining features (original windows, bulkheads, or doors) that might have conferred eligibility for the CRHR, SOIS compliance could be achieved through the restoration of the original rhythm and character of the façade, according to documentary or material evidence rather than conjecture.

491 POST STREET (ES-23)

APN: 0307009

Construction Date: 1913-1915

Architect/Builder/Designer (if known): James & Merritt Reid **(**Reid Brothers)

Previous Status: Category A

Previous CHR Status Code: 3S (individually NRHP eligible); Article 10 Designated Landmark; Article 11 Category I building, Kearny-Market-Mason-Sutter Conservation District

Past Surveys/Evaluations: 1968; 1976; 1978

AAU Acquisition Date: 2001

Current CHR Status Code: 3S, 3CS

Applicable Criteria: A and C (NRHP); 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes (per SOIS and Article 11 Design Guidelines)

BUILDING AND PROPERTY DESCRIPTION

Exhibiting a Neoclassical/Italian Renaissance-inspired design, 491 Post Street was constructed between 1913 and 1915 as the home of the First Congregational Church of San Francisco. This building replaced the group's earlier Gothic Revival-style church constructed on the site in 1870 and destroyed in the 1906 earthquake and fire.

Made of steel-reinforced concrete with terra cotta ornament, the building displays a monumental scale and symmetrical design composition. The primary entrance faces Post Street, with the secondary elevation extending southward along Mason Street. The focal point of the design is a series of giant order Corinthian columns on the facade, fluted and clad in terra cotta. The Mason Street elevation is defined by arched, deeply recessed window openings, separated by giant order attached Corinthian columns. Along the roof line, a bold, stepped cornice line defines the horizontal axis and balances the overall design.

On Post Street, the main entrance consists of a recessed entry portico, accessed via a broad stairway. Five bays span the façade, with paired, wood-paneled doors on the ground floor and large multi-light windows recessed within arched, decorative openings on the second floor. Two entrances are sheltered beneath triangular pediments, and the other three are framed beneath lintels. In addition to the giant order Corinthian columns, ornament on the façade includes attached, fluted pilasters, keystones, and other applied ornament. Windows are generally multi-light stained glass windows with aluminum awning inserts. The congregation name appears in scored concrete above the three center doors. On either side of the primary elevation, paired metal doors lead to the basement level.

Figure 107. 491 Post Street, northwest perspective. (Source: SWCA)

Figure 108. 491 Post Street, Mason Street elevation, southwest perspective. (Source: SWCA)

Figure 109. 491 Post Street, detail, main entrance. (Source: SWCA)

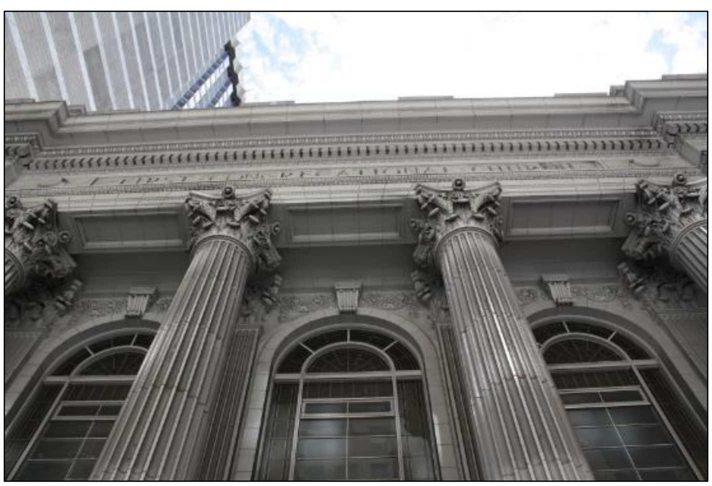


Figure 110. 491 Post Street, detail, primary elevation. (Source: SWCA)

Figure 111. 491 Post Street, detail, doors to the basement on the primary elevation. (Source: SWCA)

The secondary elevation along Mason Street mirrors the design of the primary elevation, including the use of rectangular and Palladian-style windows accented with decorative keystones. Paired wood doors with a hopper casement transom are located at the southernmost corner of the Mason Street elevation.

Figure 112. 491 Post Street, northeast perspective of the western elevation. (Source: SWCA)

The main entrance leads to a rectangular narthex. Marble stairs at the western and eastern end of the narthex lead to the basement and to the second floor balcony. Large wood double-doors lead to the nave, which remains intact with the exception of the stage area. The interiors of the narthex and nave are highly intact.

Original character-defining features include wood doors and trim, marble floors, coffered ceilings, crown molding, wooden pews, a second story balcony, and original light fixtures.

Figure 113. Interior narthex of subject property. (Source: SWCA)

Figure 114. Interior nave of subject property. (Source: SWCA)

SITE HISTORY

491 Post Street was constructed between 1913 and 1915 as the home of the First Congregational Church of San Francisco. This building replaced the group's earlier Gothic Revival-style church constructed on the site in 1870 and destroyed in the 1906 earthquake and fire. The First Congregational Church owned and occupied the building from the 1910s for nearly 90 years, until 2001, when the building was sold due to the

congregation's declining numbers and need for a smaller space.[46] On the occasion of the building's sale, the *San Francisco Chronicle* noted that the First Congregational Church had been established in 1850

> by a former missionary determined to bring God to the godless masses of a Gold Rush boomtown. Members first met in a small, wooden building on Jackson Street, between Stockton and Powell streets, before moving to the current site, at the corner of Mason and Post streets. Its main hall, with a gently sloping floor and U-shaped balcony, can seat 1,200 comfortably.[47]

As recently as the 1960s, the article noted, the congregation's numbers held steady, with more than 700 well into the postwar period. As the years wore on, however, congregation members "drifted off to the suburbs or other parts of the city. The crowds—even supplemented by tourists wandering in from their hotels—shrank. The church now [as of 2001] has about 60 active members."[48]

Faced with a monumental, large-capacity building and a dwindling congregation,

> The magnificent home gradually became a burden. … Church members decided to put the building up for sale and hunt for a more appropriate place. 'It's a wrenching sort of thing and yet we're much too small to stay here,' said Ed Steiner, 82, who joined the congregation in 1950. [49]

The building was purchased by AAU in 2001.

James and Merritt Reid, Architects

The original architects of the building, James and Merritt Reid, were well known and respected practitioners in San Francisco, in careers spanning over 40 years.[50] After settling in San Francisco by the 1890s, the Reid brothers began their architectural practice, with a particularly prolific output during the post-1906 Reconstruction era.

The following excerpts the 2001 NRHP nomination completed for the New Mission Theater, one of the Reid brothers' many commissions in San Francisco:[51]

> Both before and after the earthquake and fire, the Reid Brothers designed hotels, office buildings, churches, single-family residences and theaters. Some of their most important works include the Fairmont Hotel (1906), the Call Office Building (1914), the First Congregational Church (1914), and the Cliff House (1908) among many other prominent San Francisco landmarks.
>
> The Reid Brothers appear to have been influenced by a variety of architectural styles in their early residential work during the 1890s, but their later office, church and hotel work displays many more monumental and classical gestures. The Chicago Exposition of 1893 undoubtedly influenced the

[46] Baker, David R., "Final Service Is Sunday at First Congregation, Historic Building Sold, Worshippers Seek New Home," *San Francisco Chronicle*, 23 April, 2001.

[47] Ibid.

[48] Ibid.

[49] Ibid.

[50] Data on the James and Merritt Reid is compiled from previous evaluation and designation documents on file with the San Francisco Planning Department as well as Henry F. Withey's *Biographical Dictionary of American Architects* (Los Angeles: Hennessey & Ingalls, 1970).

[51] Verplanck, Christopher, San Francisco Architectural Heritage, 13 May 2001, "National Register of Historic Places Nomination Form, New Mission Theater, San Francisco County, CA."

architecture of the Reid Brothers in San Francisco, and the Fairmont Hotel, construction of which began in 1903, was designed in the wake of this Exposition. The training that James received at M.I.T., which was then the most important outpost of Beaux-Arts architectural training in the United States, manifested itself in the almost grandiose neoclassical work of the firm.

From the classically-inspired Golden Gate Music Concourse of 1899 to the multiple-story Call Office Building, the Reid Brothers worked on a variety of sizes and scales of projects throughout the City of San Francisco. Following the earthquake and fire, the Reid Brothers were involved in the design of numerous commercial buildings, hotels, theaters, churches and residences in the Bay Area. *Architect and Engineer* paid homage to the Reid Brothers when it claimed that "none in their profession have done more to attract the attention of the outside world to this city by meritorious examples in architecture and engineering."[52] …*Splendid Survivors* refers to the Reid Brothers as "one of the City's most important early century architectural firms," and the Fairmont Hotel has been called one of the finest early works of the Reid Brothers Architects in San Francisco.[53]

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

This section presents available Sanborn Fire Insurance Maps, historic photographs, aerial imagery, and other materials, to offer a visual overview of the property and site over time. A tabular summary of available building permits follows.

Figure 115. 1932 photograph of 491 Post Street; at this time, crest ornaments accented each side of the cornice. (Source: San Francisco Public Library History Center)

[52] *Architect and Engineer*, (November, 1910), p35.

[53] Page, p 157.

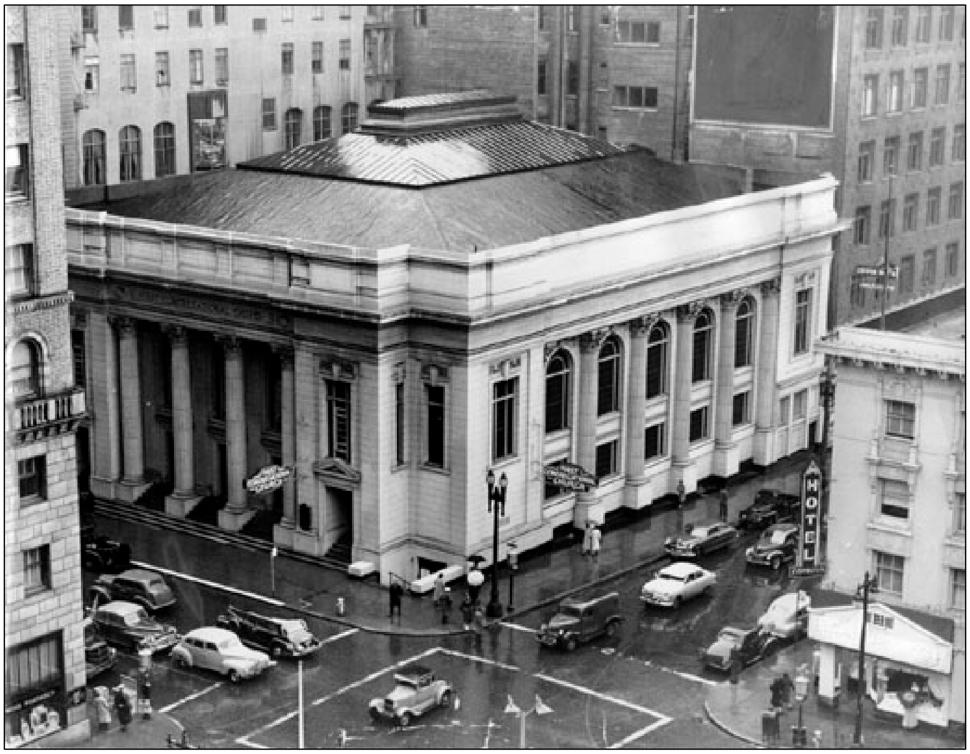


Figure 116. 1949 photograph of 491 Post Street; crest ornaments removed by this date. (Source: San Francisco Public Library History Center)

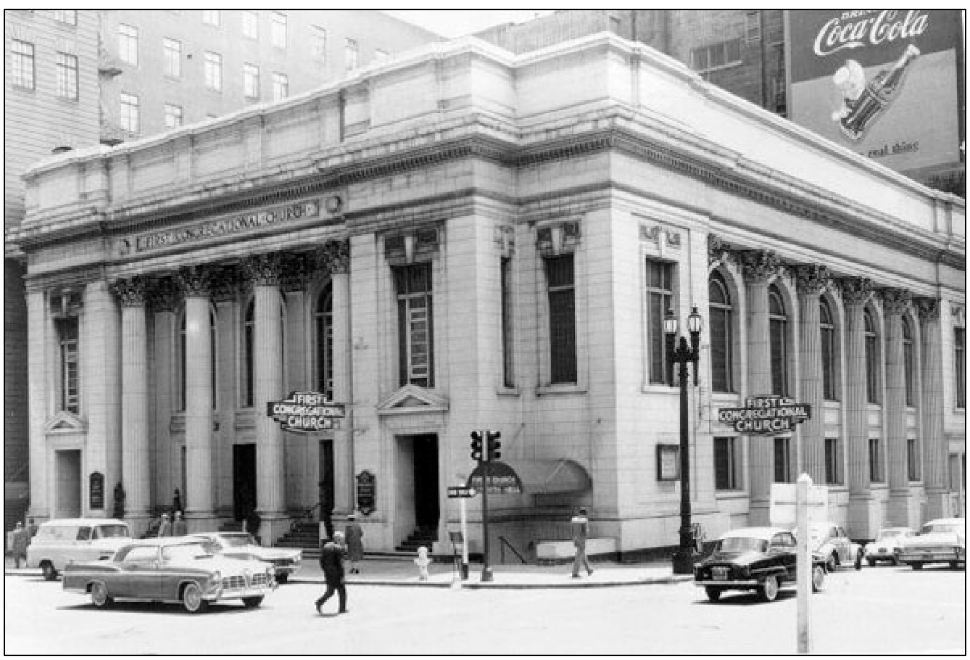


Figure 117. 1959 photograph of 491 Post Street; by this time, projecting signs were present on the façade and Mason Street elevation. (Source: San Francisco Public Library History Center)

Figure 118. 1968 photograph. (Source: Here Today, San Francisco Junior League Survey)

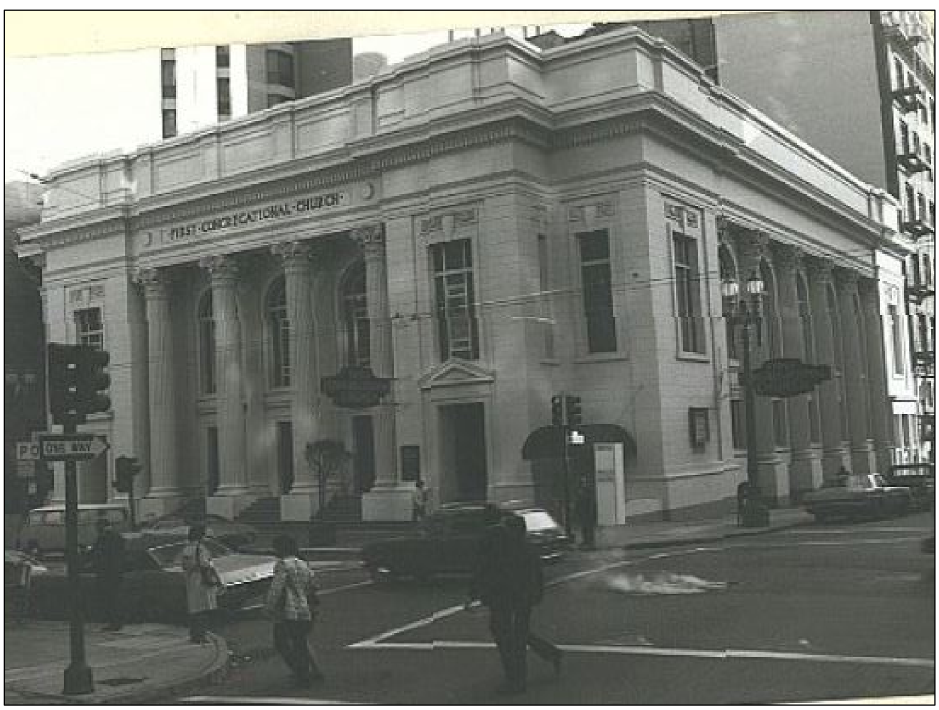


Figure 119. 1978 photograph. (Source: San Francisco Architectural Heritage Survey)

Figure 120. 2001 photograph of 491 Post Street. (Source: Academy of Art University)

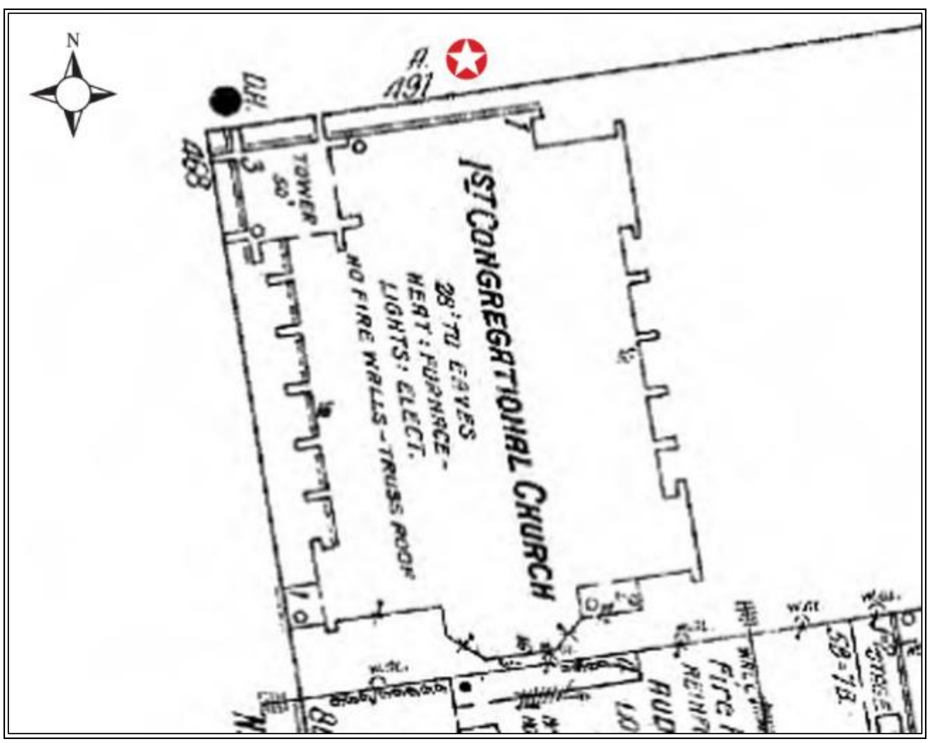


Figure 121. 1913 Sanborn Fire Insurance Map, 491 Post Street. (Source: Environmental Data Resources)

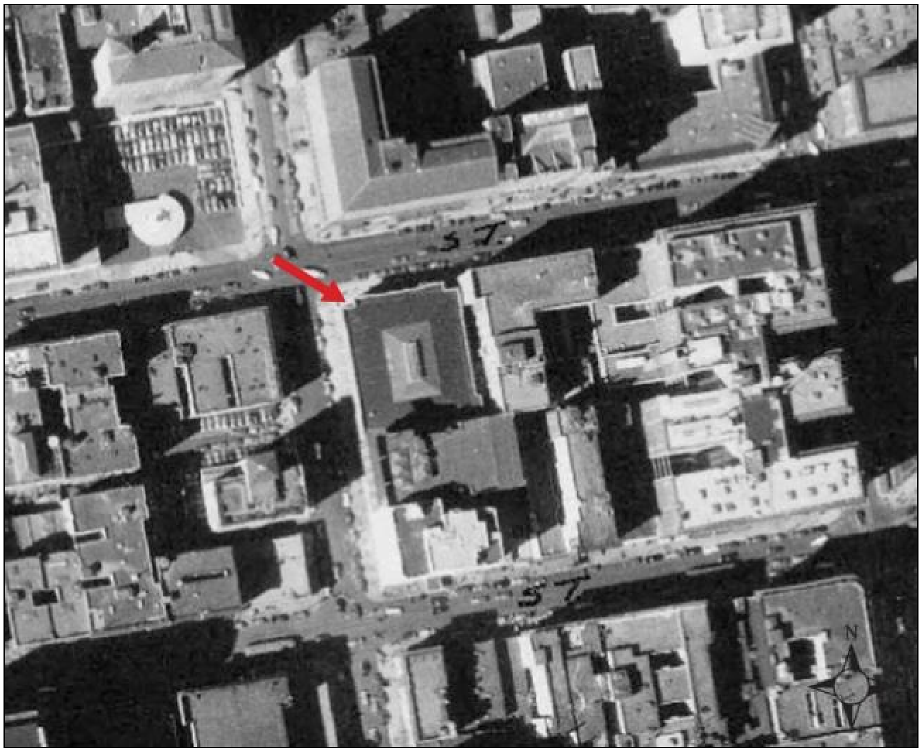


Figure 122. 1938 Aerial Photograph, 491 Post Street. (Source: Environmental Data Resources)

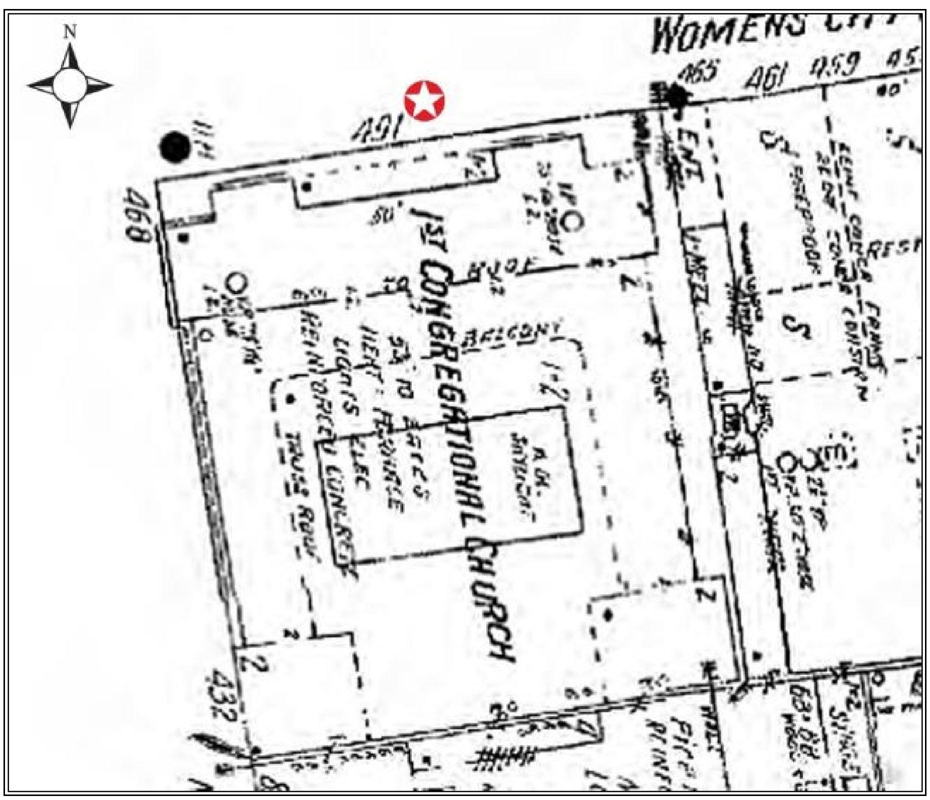


Figure 123. 1948 Sanborn Fire Insurance Map, 491 Post Street. (Source: Environmental Data Resources)

Figure 124. 1968 Aerial Photograph, 491 Post Street. (Source: Environmental Data Resources)

Figure 125. 1988 Sanborn Fire Insurance Map, 491 Post Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 491 POST STREET / APN: 0307009

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 15, 1954	168554 (151101)	First Congregational Church		$2,000	Repair floor in kitchen, change plumbing fixtures and …. to new space.
Jan. 15, 1970 (Feb. 13, 1970)	879125 (340933)	First Congregational Church	H. J. Degenkolb	$1	Install tie-backs for slurry wall work in connection with construction of St. Francis Hotel Addition. Cost of this work is included in application for Site Permit #371474.
Nov. 18, 2008 (Mar. 10, 2009)	200811196923 (1180051)	First Congregational Church AAU (lessee)		$5,700	Permit to erect (non-electric) sign.
Dec. 12, 2007 (Dec. 18, 2008)	200801112355 (1174828)	Elisa Stephens and Scott Stephens (AAU)	Doug Tom	$10,000	Two statues at front of building (Post Street elevation). Application filed to comply with notice of violation, complaint #200722712.
Nov. 19, 2008	S.F. Property Info Permit: 200811196923			$5,000	Install (non-illuminated) banners.
Mar 21, 2011 (Dec 15, 2011)	201102099892 (1254266)	AAU		$65,000	New service and sprinkler system throughout. 363 pendant sprinklers, 107 uprights, and 28 sidewalls.
Oct. 25, 2011 (Jan. 11, 2012)	201110257607 (1255626)	AAU		$45,000	Re-roofing: spray polyurethane foam roofing application.
Oct. 27, 2011	201110277764 (1250831)	AAU		$1	To obtain final inspection for work approved under PA#2008-0111-2355. To comply with NOV 200722712.
Dec. 22, 2011	201112190941 (1254710)	AAU		$35,000	Installation of sprinkler monitoring system.
Mar. 21, 2012	S.F. Property Info Permit: 201203216572			$59,392	Install a full building voice Fire Alarm system (all interior work).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 4, 2012 (June 4, 2012)	201215049824 (1266055)	AAU		$1	(No work under this permit). To establish occupancy load for assembly occupancy only.
Jan. 24, 2013 (Mar. 4, 2013)	201301248688 (1287644)	AAU		$500	Remove wall sign and free standing sign (remove 2 wall signs and sign on fence).

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

491 Post Street has multiple designations. It is an Article 10 designated landmark as well as an Article 11 designated contributor (Category I) to the Kearny-Market-Mason-Sutter Conservation District, codified and adopted in Appendix E of Article 11 of the San Francisco Planning Code. In addition, the property is individually eligible for the NRHP under Criteria A and C.

As part of the current study, the property also appears eligible for the CRHR under Criterion 1, for its association with a pioneering church in downtown San Francisco, which occupied the site for over 130 years, nearly 90 of those in the extant building at 491 Post Street. The period of significance for eligibility under CRHR Criterion 1 is 1913 to 1965. In addition, the property appears CRHR eligible under Criterion 3, as an outstanding example of the Neoclassical/Italian Renaissance styles applied to ecclesiastical architecture and as the work of master architects James and Merritt Reid. The period of significance for eligibility under CRHR Criterion 3 is 1913-1915.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity.

The subject property retains integrity and remains eligible for the NRHP and for the CRHR.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Monumental scale, two-story rectilinear massing
- Five-bay façade, with delineated treatment of ground story (with entrances) and windows on second story
- Neoclassical style, in ornamental program, building composition and massing
- Applied terra cotta sheathing and ornament
- Great order Corinthian columns (free-standing and attached)
- Horizontal axis defined by broad wrap-around cornice line
- Attenuated Palladian-style windows, accented with keystones and applied ornament
- Scored concrete to resemble masonry and quoining
- Double-height, paneled wood doors

Interior

- Spatial relationship of entrance hallway to open, sloped auditorium/nave
- Neoclassical/Italian Renaissance styling and ornamental program
- Decorative details such as paneled wood doors with decorative trim, use of marble and crown molding
- Coffered ceiling
- Original wooden pews
- Second-story balcony
- Original decorative hanging and attached light fixtures

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Operable aluminum windows have been inset within the original windows, completed before 1953 (historic photographs)
- Removal of decorative crests at cornice line (pre-1949; source, historic photographs)

Post-AAU Alterations:

- Two large statures were added at street level to the Post Street elevation pre-2008 (Permit 200801112355)
- Two banners, flanking entrance, installed in 2008 (Permit 200811196923)
- The two set of double metal doors allowing access to the basement level from Post Street were replaced circa 2010 (AAU, Memo to SWCA, 2/2/2016)
- Security cameras added
- Skateboard deterrents have been added to the stairs on Post Street

INTERIORS

The spatial relationships, materials, and decorative detailing throughout the narthex and nave appear largely intact. One exception includes an alteration to the stage area, which was purportedly completed prior to AAU's acquisition of the property in 2001 (AAU, Memo to SWCA, 2/2/2016). The basement appears to have been largely altered and reconfigured, with changes including replacement lighting, doors, and the reconfiguration of rooms. In addition, alterations included installation of a new fire sprinkler system for the sub-basement and a sprinkler monitoring system in 2011 (Permits 201102099892 and 201112190941).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

491 POST STREET (ES-23)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Statues	Circa 2008	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove statues; repair walls where necessary, patching and refinishing to match existing
Signage	2008	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove signs and repair/refinish materials and surfaces where necessary to match existing
Security Cameras	Post-2001	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Skateboard Deterrents	Post-2001	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Statues: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Skateboard Deterrents: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Statues: The project does not comply with Rehabilitation Standard No. 2. Installation of the statues resulted in the removal of the original concrete blocks that framed the entrance steps, as well as damage to materials of the original exterior walls. The two original blocks contributed to the proportional, symmetrical design of the façade and represented distinctive character-defining materials.

Signage: The project does not comply with Rehabilitation Standard No. 2. Given the quality of the architectural design, by master San Francisco architects James and Merritt Reid, the banner signs alter character-defining features of the façade. The banner signs project from the façade's projecting end bays, which frame and balance the more ornate, recessed center bays. In their current location, the banner signs introduce a visual element that interrupts the balanced, symmetrical design of the five-bay façade, which is considered a character-defining feature.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 2. Although this change resulted in minimal damage to historic materials, the skateboard deterrents are minimal in scale and appearance and do not unduly alter character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Statues: The project does not comply with Rehabilitation Standard No. 3. The statues introduce a modern conjectural element that is inconsistent with the property's historic character, significance, and Neoclassical/Italian Renaissance Revival style.

Signage: The project does not comply with Rehabilitation Standard No. 3. The size and location of banner signs on the façade introduces an element that is not representative of the property's historical appearance, use, or significance.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 3. The skateboard deterrents are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Statues: Rehabilitation Standard No. 4 is not applicable to this project.

Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Skateboard Deterrents: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Statues: The project does not comply with Rehabilitation Standard No. 5. Installation of the statues resulted in the removal of original concrete blocks that framed the steps on each side, as well as the destruction of historic exterior wall fabric. These features represented distinctive materials and character-defining features that contribute to conveying the property's historic significance.

Signage: The project does not comply with Rehabilitation Standard No. 5. The project resulted in the installation of large mounting brackets directly into historic wall materials. The project is likely to have resulted in damage to wall materials that characterize the property through their removal or destruction as part of the installation of the projecting signs.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and character-defining features.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 5. The installation of the skateboard deterrents likely resulted in some damage to character-defining features. Overall, these character-defining features still retain the distinctive qualities that convey their historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Statues: Rehabilitation Standard No. 6 is not applicable to this project.

Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Skateboard Deterrents: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Statues: Rehabilitation Standard No. 7 is not applicable to this project.

Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Skateboard Deterrents: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Statues: Rehabilitation Standard No. 8 is not applicable to this project.

Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Skateboard Deterrents: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Statues: The project does not comply with Rehabilitation Standard No. 9. The statues rest on square pillars, which are attached to the exterior wall of the building, and climb over one story in height. Given the Neoclassical/Italian Renaissance style of the building, and its purposeful, balanced proportional design and massing, the one-story statues are incompatible with the building. Although they are not attached to the building (their bases are), they are not compatible with the historic features of the façade. Further, though the statues are clearly differentiated, they are composed of metal, which is incompatible with the historic sheathing and ornamental materials that characterize the property.

Signage: The project does not comply with Rehabilitation Standard No. 9. Given the quality of the architectural design, by master architects James and Merritt Reid, the banner signs detract from the design of the primary façade. The projecting side bays on which the signs are mounted were designed to balance and frame the more ornate center bays. In their current location, the banner signs introduce a visual element that interrupts the balance and proportions of the façade design, which is considered a character-defining feature.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 9. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in* *the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Statues: The project complies with Rehabilitation Standard No. 10. Although installation of the statues may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the banner signs may have resulted in the destruction of historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 10. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

ARTICLE 11 ANALYSIS

According to Article 11, Appendix E, of the San Francisco Planning Code, buildings within the Kearny-Mason-Market-Sutter Conservation District typically feature massing that is a vertically oriented rectangle. The two-story rectilinear massing of the subject property is consistent with the architectural features of contributors to the Kearny-Mason-Market-Sutter Conservation District. In their current location, the two banner signs introduce a visual feature that interrupts the vertical design composition of the five-bay façade and detracts from the primary façade.

Furthermore, the introduction of projecting signs such as banners at columns or bays is discouraged in Article 11, Appendix E, of the San Francisco Planning Code, for properties within the Kearny-Mason-Market-Sutter Conservation District; such signs obscure character-defining features, as exhibited on the subject property, and are therefore not recommended.[54]

RECOMMENDATIONS

To facilitate compliance with both SOIS and applicable Article 11 guidelines, the banner signs and statues should be removed, areas of damage repaired, and the original appearance restored and refinished to match existing in materials and appearance. If a new sign is to be installed, it should be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and designed and placed to comply with applicable Article 11 guidelines.

[54] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 5.

540 POWELL STREET (ES-25)

APN: 0285009

Construction Date: 1909

Architect/Builder/Designer (if known): Alexander Aimwell Cantin

Previous Status: Category A

Previous CHR Status Code: 3S; Category I, Article 11, Kearny-Market-Mason-Sutter Conservation District

Past Surveys/Evaluations: 1976; 1978

AAU Acquisition Date: 1977

Current CHR Status Code: 3S

Applicable Criteria: A/C

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Rectangular in plan and set flush to the sidewalk, 540 Powell Street was constructed in 1909 for the Benevolent and Protective Order of Elks. The four-story building occupies a rectangular, steeply sloped lot, with the primary elevation facing Powell Street and secondary elevation fronting Anson Place. The building also has a subterranean basement level.

Drawing on the Spanish Renaissance/Mission Revival styles, the building displays a symmetrical design composition and differentiated treatment of the ground story and upper stories. On the façade and visible secondary elevation, the primary design motif is the repeating use of arched wall openings, accented with decorative sills, dentil courses, and spandrel panels.

The ground story generally consists of broad, unadorned expanses of smooth stucco-clad walls, punctuated with three large arched openings. A granite-clad base provides the foundation of the building the level of the sidewalk. The focal point of the ground story is the centered entry portico, flanked by two arched window openings. The center stories are characterized by a progression of attached columns and rows of double-hung windows, with ornamental detailing varying on each floor.

The building is capped with a flat roof and stepped parapet, accented with scroll work and centered medallion, facing Powell Street.

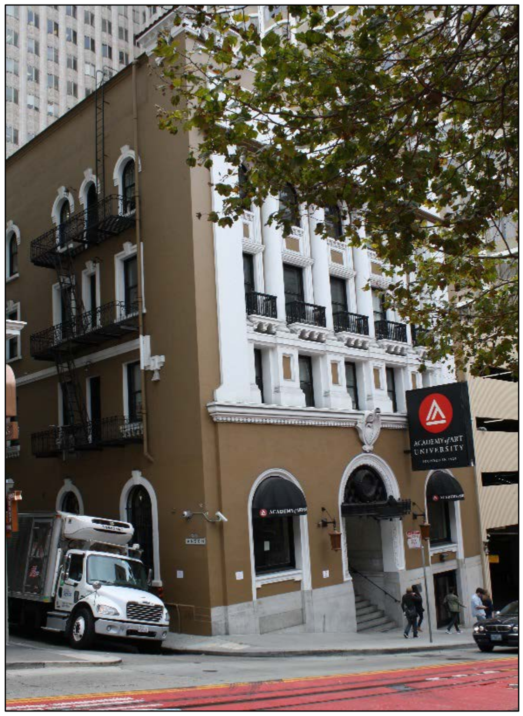


Figure 126. 540 Powell Street.

The tall first story features a centered, recessed main entry adorned with marble. The main entrance appears to retain its original wood double-doors; the doors have beveled vertical windows, stylized metal sheeting at the bottom, and transom windows above. Arched windows trimmed with molded frames are located on either side of the main entry, which are partially covered by dome window awnings. A cornice line above the first story has a central large medallion. Second, third, and fourth story windows are accented with recessed spandrel panels, engaged Corinthian columns, and ornamental detailing. The windows are nonoriginal vinyl, with original wood-framed double-hung windows on the upper stories, and original fixed and hopper wood-framed windows on the first story. A nonoriginal glass and metal door in the southernmost corner of the facade leads to the basement.

Figure 127. 540 Powell Street, close up of one of the main entry of the primary elevation.

Figure 128. 540 Powell Street, close up of windows and details on the primary elevation.

Along Anson Street, the secondary elevation has a fire escape at the eastern end with various types of personnel doors and a wheelchair ramp on the first story. Windows on this elevation feature decorative sills, hood molds with keystones, and frames with keystones. Other decorative features include recessed panels and trim above the second floor. Rectangular and arched double-hung windows in a variety of configurations are displayed on the elevation. Similar to the façade, the windows on the second and third floors have been replaced with vinyl. Metal security bars have been added over the first story windows.

Figure 129. 540 Powell Street, southwest perspective of the north elevation.

The main entry leads to a small lobby, with a hallway extending towards the rear (east) of the building. Each of the upper floors features a similar floorplan consisting of a narrow hallway bordered by classrooms on either side. Each floor is accessed via a curved wooden staircase or an original Otis elevator. The basement level has been altered through early partitions, which have divided what was originally an open floor plan. Character-defining features found within the interior spaces include original wood elements and accents such as doors, framing, and floors, as well as original wainscot, fireplaces with paneled chimneys, transom windows, light fixtures, coffered ceilings, and paneled walls.

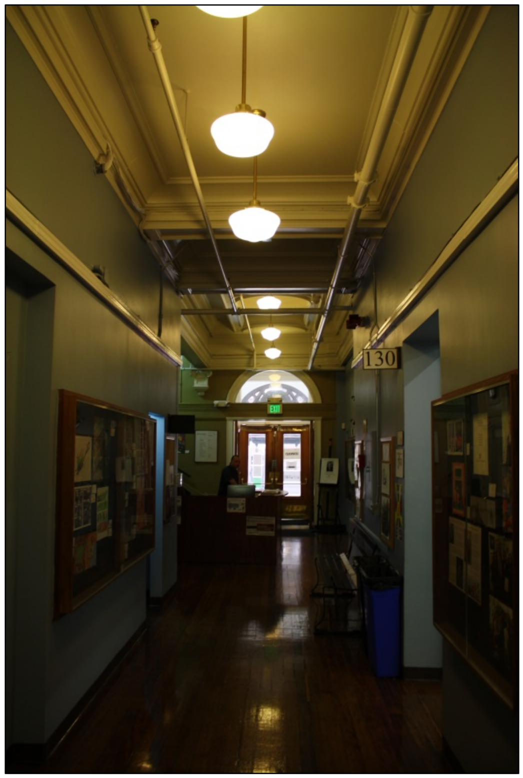


Figure 130. Interior lobby of subject property.

Figure 131. Example interior of subject property.

SITE HISTORY

Construction of 540 Powell Street commenced with a ground-breaking ceremony in November 1908. The San Francisco Lodge, No. 3, Benevolent and Protective Order of Elks commissioned the building after its members raised $150,000 for the construction through the sale of stock.[55] The Spanish Renaissance/Mission Revival-style building was designed by well-regarded and prolific San Francisco architect (and Elks lodge member), Alexander Aimwell Cantin. A native of New York, Cantin received his license to practice architecture in 1901 and remained in active practice for nearly half a century. His San Francisco and Bay Area commissions included numerous post-Reconstruction era buildings, as well as movie theaters, including the Del Mar Theater (San Leandro, 1941), Orinda Theater (Orinda, 1941), and State Theater (Red Bluff, 1946). In the post-World War II era, Cantin worked in partnership with his son, A. Mackenzie Cantin.

The *San Francisco Chronicle*, in an article published 2 October 1908, heralded the amenities and details of the new Elks building:

> The basement will be fitted up as a jinksroom and ballroom, with heavy timbered beams, clinker brick walls and high wainscot. The demands of the social side of the lodge, which are exacting, will be met on the first floor, which is to be luxuriously furnished and arranged as a lounging room with nooks and cozy corners, a large dining room, billiard-rooms, library, writing-rooms, telephone and hat rooms and office. The second floor will be exclusively devoted to living-rooms with baths, as will be the front part of the third and fourth floors. In the rear of the third and fourth floors will be richly wainscoted to a height of twelve feet and the walls and ceiling will be decorated and

55 "Elks Will Build Magnificent Home," *San Francisco Chronicle*, 2 October 1913.

topped by a grand dome. The furnishings throughout will be on a par with the style of the building itself, which will be used exclusively by the lodge as a club and for fraternal purposes and also for its numerous social functions.[56]

Following its founding in 1876, BPOE Lodge No. 3 occupied several rented spaces in downtown San Francisco. At the time of the 1906 earthquake and fire, the organization was located at 223 Sutter Street; the building and lodge possessions were destroyed in the fire, with the exception of a few records. Upon completion of 540 Powell Street, the lodge began occupying its new home in March 1910,[57] where it remained until 1924, when a growing membership hastened relocation to a new space at 450 Post Street.[58]

By 1927, 540 Powell Street had been purchased by the University of California, which used the property as an extension space. A major remodel of the building took place in 1927, consisting of nearly $50,000 of work carried out by architect W.P. Stephenson; these alterations appear to have included the construction of classrooms. According to available building permits, the building's decorative, overhanging cornice line, which appears in historic photographs, was removed by the University of California in 1943. By circa 1970, San Francisco State College began occupying the building. Prior to the AAU's 1977 acquisition of the property, a portion of the building was occupied by the Erotic Art Museum.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 132. Sketch of 540 Powell Street, n.d. (Source: Academy of Art University)

56 "Elks Will Build Magnificent Home," *San Francisco Chronicle*, 2 October 1913.

57 "The Lodge on the Cable Car Line," *Elks Bulletin*, San Francisco Lodge B.P.O. Elks #3, February 1998.

58 Michael Corbett, *Splendid Survivors: San Francisco's Downtown Architectural Heritage*. California Living Books, 1979, p164.

Figure 133. Circa 1908 photograph of 540 Powell Street under construction. (Source: University of Berkeley, College of Environmental Design Archives)

Figure 134. Circa 1908 photograph of 540 Powell Street under construction. (Source: University of Berkeley, College of Environmental Design Archives)

Figure 135. Circa 1909 photograph of 540 Powell Street. (Source: University of Berkeley, College of Environmental Design Archives)

Figure 136. Circa 1909 historic photograph of 540 Powell Street. (Source: University of Berkeley, College of Environmental Design Archives)

Figure 137. Early photograph (n.d.) of 540 Powell Street. (Source: Academy of Art University)

Figure 138. 1968 photograph, 540 Powell Street. (Source: Here Today, San Francisco Junior League Survey)

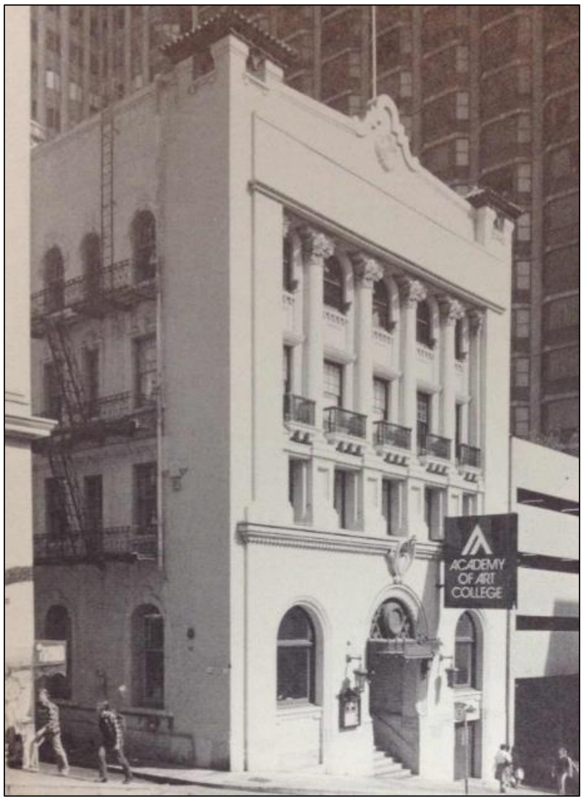


Figure 139. 1978/1979 photograph. (Source: San Francisco Architectural Heritage Survey)

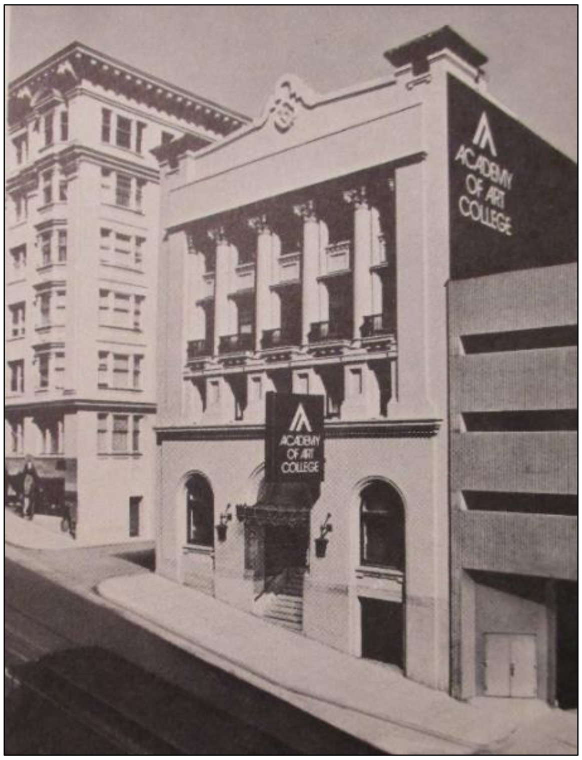


Figure 140. Circa 1980s photograph, 540 Powell St. (Source: San Francisco Heritage)

Figure 141. 2015 photograph of 540 Powell Street.

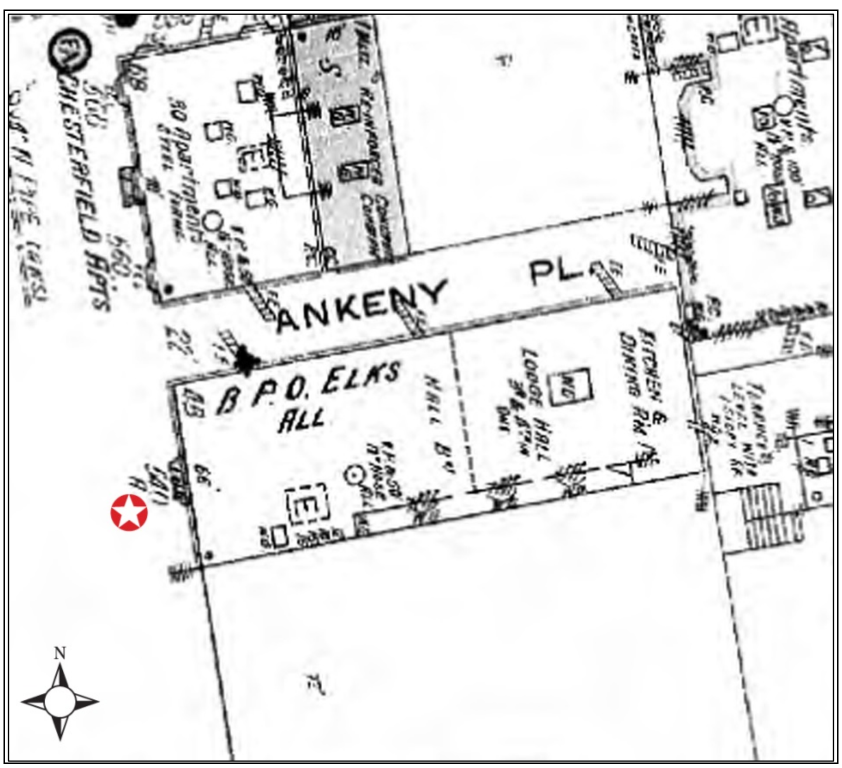


Figure 142. 1913 Sanborn Fire Insurance Map, 540 Powell Street. (Source: Environmental Data Resources)

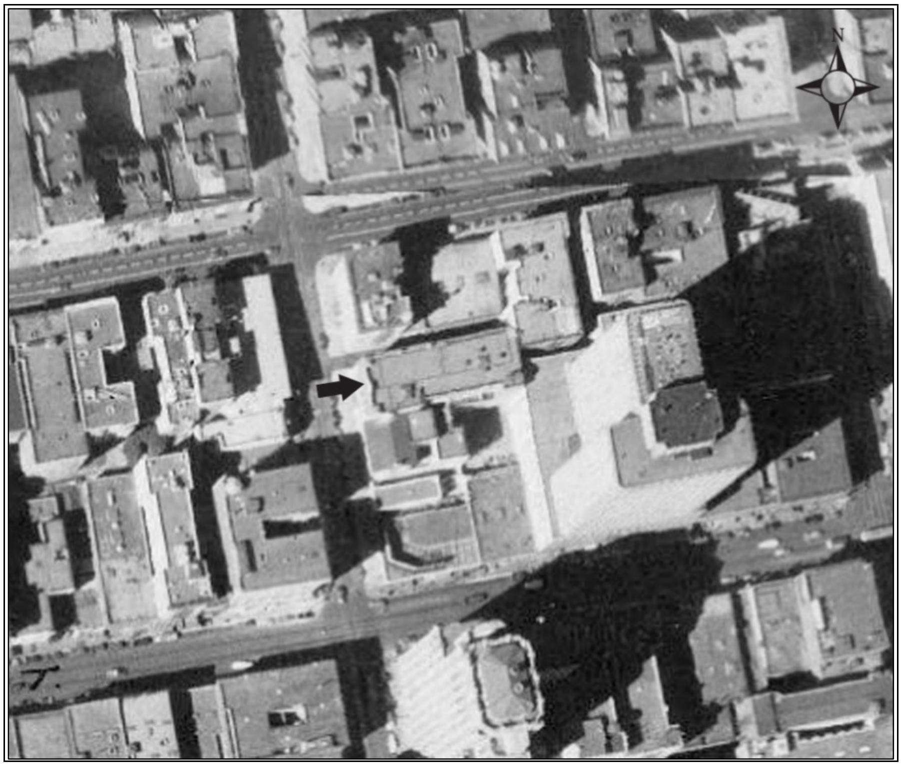


Figure 143. 1938 Aerial Photograph, 540 Powell Street. (Source: Environmental Data Resources)

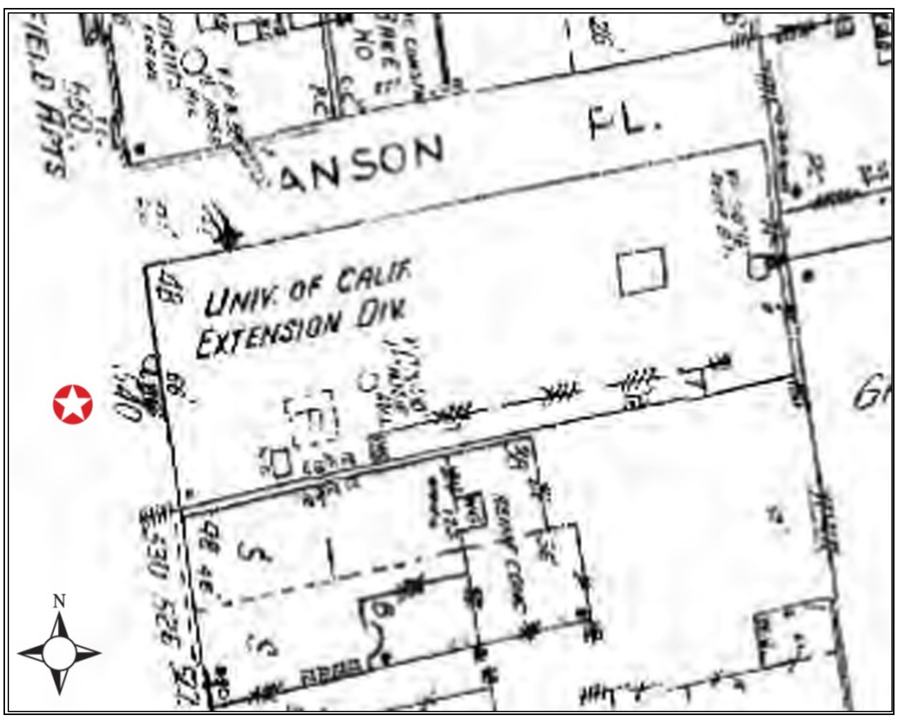


Figure 144. 1948 Sanborn Fire Insurance Map, 540 Powell Street. (Source: Environmental Data Resources)

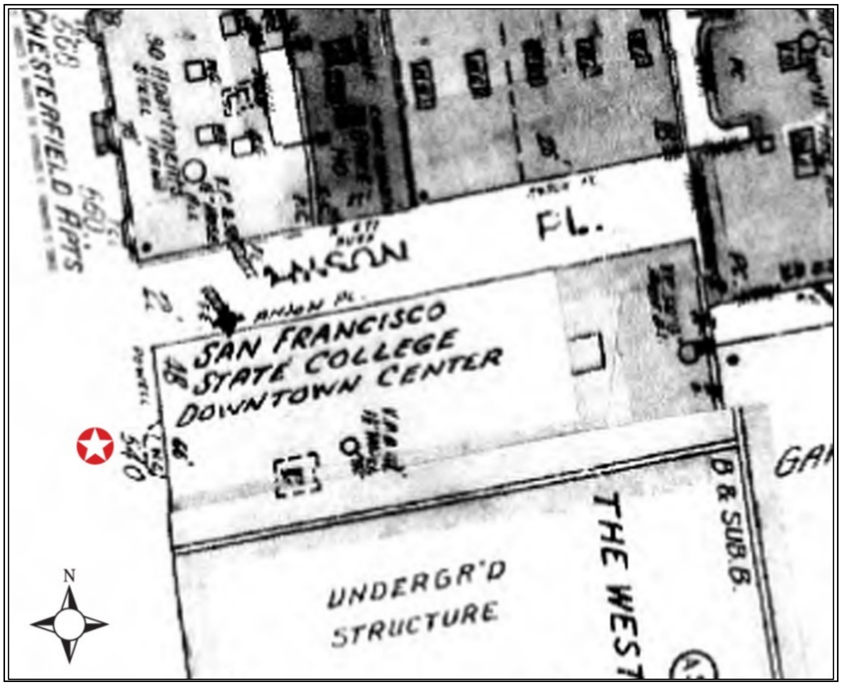


Figure 145. 1974 Sanborn Fire Insurance Map, 540 Powell Street. (Source: Environmental Data Resources)

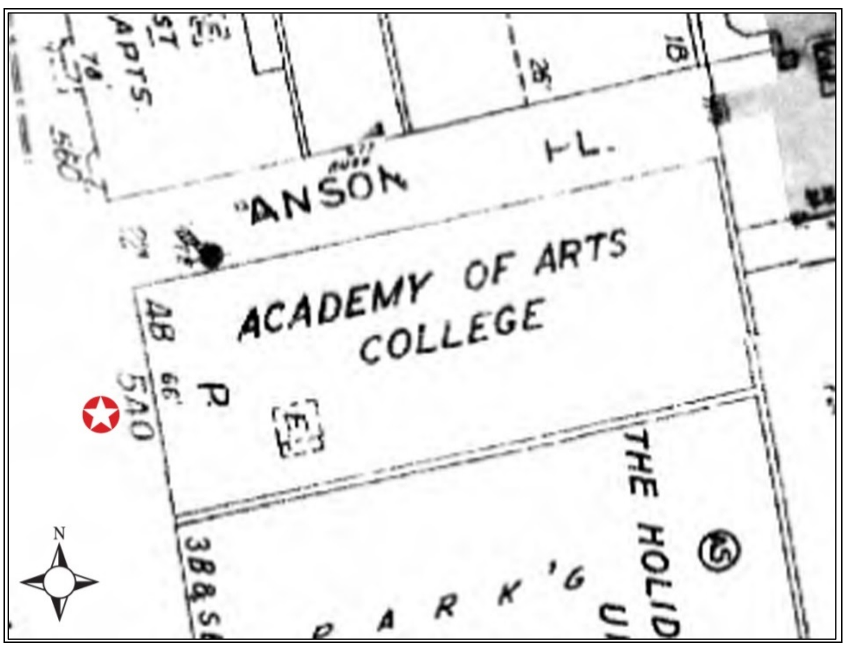


Figure 146. 1986 Sanborn Fire Insurance Map, 540 Powell Street. (Source: Environmental Data Resources)

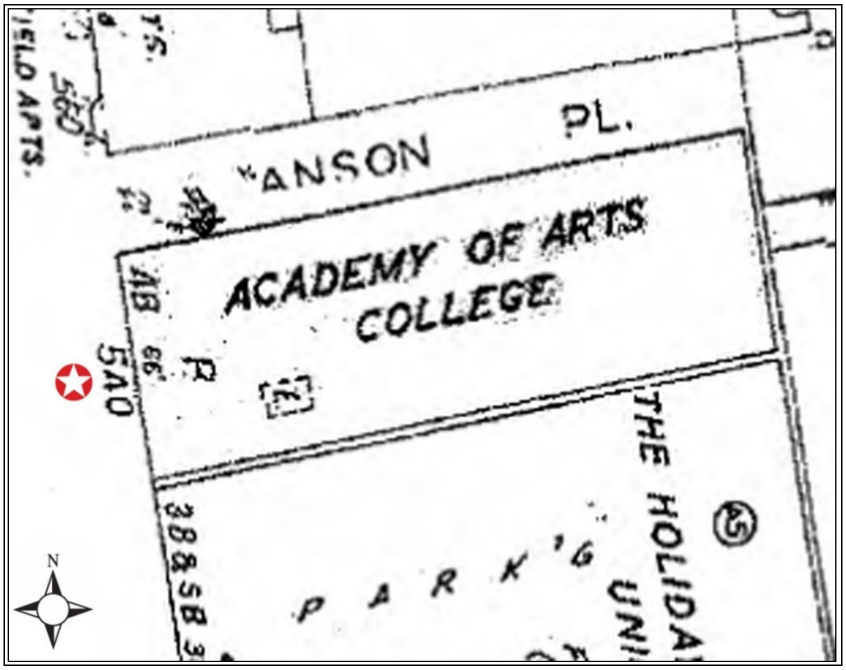


Figure 147. 1999 Sanborn Fire Insurance Map, 540 Powell Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 540 POWELL STREET / APN: 0285009

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 10, 1908	[Not legible]	S.F. Elks Building Association	[Not legible]	$92,814	Permit to erect a four-story and basement building, constructed of reinforced concrete measuring 50 ft. by 137 ½ ft., and 68 ft. in height.
[illegible] Sept. 1927	[Not legible]	Old Elks Club – to be owned by University of California	W.P. Stephenson	$48,072	Alteration permit: Projecting rooms to be constructed in accordance with Rec 187. To be in accordance with Pres. 262-8264.
Mar. 18, 1935	11070 (13136)	University of California		$250	[Not legible]
Aug. 9, 1935	13659 (5271)	University of California		$485	To erect one neon sign, to be erected on face of building, projecting over sidewalk to curb end of marque.
May 2, 1938	34774 (34243)	University of California		$450	Erect scaffold on sidewalk in blind alley on north side of building, and install new drain lines from roof to basement.
Jan 26, 1943	70773 (67640)	University of California		$1,200	Remove cornice.
Apr. 15, 1959	(198984)	University of California		$500	Permit to erect sign: Double face horizontal neon.
July 14, 1970	386341 (348785)	San Francisco State College		$40,000	Underpin and provide lateral support to south wall of existing building, to permit excavation for proposed Westbury Hotel on adjacent property to south.
Sept. 21, 1973	423915	Harsh Investment Company	[Not legible]	$22,000	Labor & material; construct with concrete walls in basement - to comply with requirements.
June 9, 1975	447559 (400905)	Harsh Investment Company	Degenkolb Associates	$35,000	Repair of basement floor due to subsidence of subgrade. Existing wood floor, sleepers and concrete under to be removed. Pressure grout subsurface voids, fill surface voids with pea gravel.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Feb. 18, 1976	456488 (408670)	AAU		$1,800	Permit to erect sign on exterior wall.
May 4, 1981	8104080 (471910)	AAU	P. Theodore Anderson	$40,000	Bracing of existing parapet walls and roof tanks as per notice from S.F. parapet safety section file No. 151.
Sept. 17, 1982	8207643 (493880)	AAU		$40,000	Install boiler in basement. PG&E conversion from steam to independent service.
Dec. 3, 1991	9122859 (690658)	AAU		$1,800	Remove temporary wall and added counter.
Aug. 20, 1992	9214035 (706739)	AAU		$1,600	2 canvas dome awnings (windows).
Feb. 3, 1998	9801788 (842354)	Stephens Institute	Thomas K. Lew	$15,000	Emergency repair on water damaged ceiling at 1st, 2nd, 3rd, and 4th floors.
July 8, 1998	9812918 (863850)	Stephens Institute	Thomas K. Lew	$25,000	Provide handicapped (ADA) assessable entrance. Provide handicapped (ADA) lift.
July 30, 2003	200308061361 (1002043)	Stephens Institute	Middlebrook & Louse	$10,000	Patch and repair sidewalk per S.F. city notice to repair.
Apr. 1, 2008	200804018449			$5,001	Erect an electric double faced illuminate projecting sign.
May 9, 2011	201105095675			$1,000	Painted (non-structural) sign.
June 6, 2011	201106067509 (1246081)		Jason Louie	$16,500	Repair the roof parapet due to cracking at the roof level.
Sept. 24, 2015	201509247952			$700	To abate planning violation, remove painted wall signs.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

The subject property was evaluated for eligibility for the California Register of Historical Resources (CRHR).

In addition to being a Category I contributing property in the Kearny-Market-Mason-Sutter Conservation District, 540 Powell Street appears to be individually eligible for the CRHR under Criterion 1, as an example of institutional architecture in downtown San Francisco in the post-1906 Earthquake Reconstruction period. The property also qualifies individually under CRHR Criterion 3, as an excellent example of the Spanish Renaissance/Mission Revival style applied to institutional/commercial architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

540 Powell Street retains integrity and remains CRHR-eligible individually. The period of significance is 1909 to circa 1925.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Rectilinear massing and building plan
- Symmetrical design composition
- Set flush with sidewalk
- Four-story building capped with a flat roof and stepped parapet, accented with scroll work and a centered medallion
- Spanish Renaissance/Mission Revival ornamental program
- Attached colonnade of Corinthian columns on facade
- Arched window openings, trimmed with molded frames, and large original wood-frame windows
- Marble interior to entryway
- Granite base with smooth stucco-clad exterior
- Original main entry with wood double-doors, transom windows, beveled vertical windows and ornamental metal sheeting at bottom
- Original wood double-hung windows on ground-floor

Interior

- Original doors, transoms, frames and wainscot
- Ornate room/elevator
- Original Fire Escape sign
- Original wood floors
- Original light fixture and coffered ceiling in main hallway
- Paneled walls, decorative features on columns, and decorative railings in basement
- Curved wooden stairs in basement
- Original elevator
- Fireplaces with paneled chimneys
- Stage/performance space in basement

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Removal of applied ornament/decorative features (including curved attached pediments and detailing capping the entrance and fourth-story windows) by University of California in 1943 (Permit 70773)
- Replacement of basement-level door from Powell Street with metal glass door (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Original second- and third-story windows on the Powell Street elevation removed and replaced with double-hung vinyl windows; original windows visible on 1979 photograph included with Charles Page Hall & Associates Survey (see below)
- Parapet stabilization repair work completed in 2001 (Permit 201106067509)
- The first signage was approved in 1976 (Permit 456488); later signage was approved in 2008 (Permit 200804018449)
- Two dome window awnings added to ground story in 1992 (Permit 9214035)
- Hole cut into the top of the south arched window (window intact and visible on the 1979 photograph included with Charles Page Hall & Associates Survey)
- Security cameras added

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- On the southernmost end of the east elevation is an emergency exit with newer ground-level doors with ADA ramp (AAU, Memo to SWCA 2/2/2016)

Post-AAU Alterations:

- Original second- and third-story windows on the east elevation removed and replaced with double-hung vinyl windows. (These replacement windows match the nonoriginal replacement windows on the primary elevation.)
- Security cameras added
- Security bars have been placed on first-story windows along the east (alley) elevation (AAU, Memo to SWCA 2/2/2016)

INTERIORS

The interior retains a number of character-defining features and spaces. Alterations over the years have included the removal of original basement floor and concrete in 1975 (prior to AAU's acquisition), to correct for subsidence/settling. Following repurposing of the building for use as the University of California Extension Division, classroom spaces were also added in the upper stories (also prior to AAU's acquisition).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

540 POWELL STREET (ES-25)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Parapet Stabilization and Repair (along primary elevation roofline and ornamental medallion)	2001	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove steel reinforcement bars along top of roof and replace with supports that have minimal visual impacts to character-defining features; repair/restore appearance/materials of parapet, using documentary and material evidence; patch and refinish

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												surfaces to match existing
Projecting Blade Sign	2008	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove sign; repair wall materials and surface; refinish to match existing; for replacement signage, select location that does not result in the removal, destruction, or obstruction of character-defining features
Barrel Window Awnings	1992	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove awnings; repair/patch/refinish surfaces to match existing; replacement materials and features should be based on extant original features and/or documentary evidence.
Security Cameras	Post-1977	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Window Replacements	Post-1979	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Remove vinyl windows; plan for their removal

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												in such a way as to minimize damage to surrounding surfaces and/or materials; replace with windows matching historic fenestration in terms of configuration, function, muntin patterns/profile and thickness of frames; use extant original features and/or documentary evidence for replacement windows
Hole cut into arched window (façade, lower right corner)	Post-1979	Yes	No	N/A	N/A	No	N/A	N/A	N/A	No	No	Replace original window, to match historic fabric in configuration, function, framing materials, thickness and profile; repair and refinish surfaces to match existing
SECONDARY ELEVATIONS Known/Visible Exterior Alterations												

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
Security Cameras	Post-1977	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Window Replacements	Post-1979	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Remove vinyl windows; plan for their removal in such a way as to minimize damage to surrounding surfaces and/or materials; replace with windows matching historic fenestration in terms of configuration, function, muntin patterns/profile and thickness of frames; use extant original features and/or documentary evidence for replacement windows

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Parapet Repair: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Projecting Blade Sign: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Barrel Window Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Hole cut into arched window: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 2. The building's distinctive roof line and parapet are character-defining features that reflect its Spanish Renaissance/Mission Revival style. In its current location, the metal bar stabilizing the parapet interrupts and obscures the central medallion and changes the original appearance of the parapet and roofline.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 2. The building is historically significant for its architectural style, which includes a symmetrical design composition and delineation between the treatment of the ground story and upper stories. Given its location, the blade sign interrupts and detracts from the character of the façade. Given that the sign extends from the ground story to the upper story, it interrupts the vertical composition that characterizes the property.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that the property did not have window awnings during the period of significance (1909 to circa 1925). The large arched window openings on the façade are considered character-defining and representative of the building's Spanish Renaissance/Mission Revival Style. The barrel window awnings alter the shape and appearance of the character-defining wall openings and obscure the detailed, ornamental surrounds, which were designed and detailed to be seen.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not unduly alter character-defining features, spaces, and spatial relationships that characterize the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that original windows on the primary and secondary elevations included multi-light casement windows. These original windows were removed and replaced with new windows that differ in appearance and function.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 2, inasmuch as it involved the removal and replacement of original, distinctive materials that characterize the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 3. The metal bar used to stabilize the parapet is clearly visible and not consistent with the historic character of the property.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 3. The projecting sign is highly visible and introduces a feature that is not representative of the property's historic significance, use, or character.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 3. The barrel window awnings are highly visible and introduce a feature that is not representative of the property's historic significance, use, or character.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the original windows on the primary and secondary elevation were multi-light and casement windows. While the vinyl windows are composed of materials that are clearly modern, the double-hung window-frame configuration of the new windows introduces an element that is not consistent with the original design and character of the building.

Hole cut into arched window: Rehabilitation Standard No. 3 does not apply to this project (the removal of part of the window does not in itself create a false sense of historical development).

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Parapet Repair: Rehabilitation Standard No. 4 is not applicable to this project.

Projecting Blade Sign: Rehabilitation Standard No. 4 is not applicable to this project.

Barrel Window Awnings: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 4 is not applicable to this project.

Hole cut into arched window: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Parapet Repair/Metal Brace: The project does not comply with Rehabilitation Standard No. 5. The installation of the metal bracing bar on the façade of the building interrupts and detracts from the distinctive materials, features, and design of the roofline parapet.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 5. Installation of the blade sign and mounting brackets has resulted in damage to/removal of original, character-defining wall materials, and the projecting sign interrupts and detracts from the distinctive features and design of the façade.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 5. Installation of the barrel window awnings was completed by attaching metal frames directly to decorative window surrounds, resulting in damage to/obstruction of the distinctive materials and features that characterize the property. The barrel window awnings obstruct views of the façade's character-defining window openings and their decorative detailing, changing the overall appearance of the distinctive materials and features.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in nominal damage/obstruction to distinctive features and finishes.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original multi-light and casement windows, which were examples of the distinctive materials, features, and craftsmanship that characterized the property.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 5. The project resulted in damage to/removal of a character-defining window on the façade of the building.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Parapet Repair: Rehabilitation Standard No. 6 is not applicable to this project.

Projecting Blade Sign: Rehabilitation Standard No. 6 is not applicable to this project.

Barrel Window Awnings: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. Rather than retaining and repairing character-defining windows, the original windows were removed and replaced with vinyl windows.

Hole cut into arched window: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Parapet Repair: Rehabilitation Standard No. 7 is not applicable to this project.

Projecting Blade Sign: Rehabilitation Standard No. 7 is not applicable to this project.

Barrel Window Awnings: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 7 is not applicable to this project.

Hole cut into arched window: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Parapet Repair: Rehabilitation Standard No. 8 is not applicable to this project.

Projecting Blade Sign: Rehabilitation Standard No. 8 is not applicable to this project.

Barrel Window Awnings: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 8 is not applicable to this project.

Hole cut into arched window: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Parapet Repair: The project does not comply with Rehabilitation Standard No. 9. The parapet is an architectural feature that reflects the property's status an outstanding example of the Spanish Renaissance/Mission Revival Style. In its current location, the metal bar stabilizing the parapet interrupts and obscures the central medallion and changes the original appearance of the parapet and roofline. In addition, installation of the metal bar on the façade has likely resulted in damage to the historic wall materials that characterize the property.

Projecting Blade Sign: The project does not comply with Rehabilitation Standard No. 9. In its current location, the sign extends from the ground floor to the upper-story colonnade, interrupting the vertical design composition and overall character of the facade. In addition, the size and materials of the blade sign are inconsistent and incompatible with the historic character of the property.

Barrel Window Awnings: The project does not comply with Rehabilitation Standard No. 9. The large, arched window openings on the façade are considered character-defining and representative of the building's Spanish Renaissance/Mission Revival Style. The barrel window awnings alter the shape of the openings and obscure the detailed surrounds and windows behind them. In addition, the project has resulted in damage to/removal of distinctive materials through the attachment of the awning's metal frame directly to the decorative window surrounds.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs indicate that the original windows on the primary and secondary elevations were multi-light and casement windows. The project involved the removal of original multi-light and casement windows, which were examples of the distinctive materials and craftsmanship that characterized the property.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to/removal of a character-defining window on the façade of the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Parapet Repair: The project complies with Rehabilitation Standard No. 10. Although installation of the metal stabilization bar may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Projecting Blade Sign: The project complies with Rehabilitation Standard No. 10. Although installation of the blade sign may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Barrel Window Awnings: The project complies with Rehabilitation Standard No. 10. Although installation of the awnings may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and if removed, the essential form of the property would be unimpaired.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the vinyl windows.

Hole cut into arched window: The project does not comply with Rehabilitation Standard No. 10. The window was removed, so its essential form is no longer intact.

ARTICLE 11 ANALYSIS

540 Powell Street is a Category I (Significant) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the San Francisco Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11 properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[59]

In terms of signage, Article 11, Section 1111.6, *Standards and Requirements for Review of Applications for Alterations* states that

> an application for a business sign, general advertising sign, identifying sign, or nameplate to be located on a Significant or Contributory Building or any building in a Conservation District shall be subject to review by the HPC pursuant to the provisions of this Article. The HPC shall disapprove the application or approve it with modifications if the proposed location, materials, typeset, size of lettering, means of illumination, method of replacement, or the attachment would

[59] San Francisco Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.

adversely affect the special architectural, historical or aesthetic significance of the subject building or the Conservation District.[60]

Additional guidance is provided in *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* (San Francisco Planning Department, June 2009). In addition, Article 11 indicates that signs within Conservation Districts are subject to *Article 6, Signs*. *Design Standards for Signage and Awnings in the Kearny-Mason-Market-Sutter Conservation District* states the following: "Methods of illumination: Ideally, all signs should appear to be indirectly illuminated. This is commonly achieved by installing an external fixture to illuminate the sign or by using a reverse channel halo-lit means of illumination."[61] Similarly, for signs within Conservation Districts, Article 6 states that signs with internally illuminated box signs with glass or plastic lenses are not permitted, and signage above the architectural base of the building is not permitted.[62]

Two alterations to 540 Powell Street carried out by AAU appear in noncompliance with Article 11 guidelines. These changes are the projecting wall sign and barrel-vault awnings on the façade.

In its current location, the projecting sign extends from the ground story to the upper story, interrupting the design composition of the facade. According to Article 11, buildings within the Kearny-Mason-Market-Sutter Conservation District typically exhibit a rectilinear massing, with aesthetic effect achieved through a differentiated, vertical design composition. 540 Powell Street exhibits these qualities and, in this way, contributes to the overall character of the Conservation District.

The Conservation District design standards discourage the placement of signs in such a way that character-defining features are obscured. In addition, the design standards discourage locating a project sign above the window sill of the first residential floor.[63] The projecting blade sign obscures the vertical composition of the building and extends above the sill of the first upper-level floor. In addition, the sign appears to be an internally illuminated box sign with plastic lenses. Under Article 11 guidelines, illuminated box signs are not permitted.[64]

In terms of the barrel-vault awning, the Design Standards specify that awnings should not obscure character-defining features.[65] In the case of the subject property, the awnings introduce an architectural feature that obscures character-defining window openings and decorative surrounds and details that were designed to be seen.

RECOMMENDATIONS

To facilitate compliance with SOIS and applicable Article 11 guidelines, the projecting wall sign should be removed and the original physical appearance of wall materials and surrounding details and finish restored. If a new sign is to be installed, it should be placed in a location on a secondary elevation that does not

---

[60] San Francisco Planning Code, Article 11, Section 1112.c.

[61] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District,* June 2009, p. 3.

[62] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.

[63] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 5.

[64] Ibid, 11-13.

[65] Ibid, 7.

obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and be indirectly illuminated per Article 11 and Article 6 guidelines.

The barrel window awnings should be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, and the appearance of the original windows/features restored per documentary evidence. Materials should be repaired and refinished to match existing.

For the parapet repair to be brought into SOIS compliance, the steel reinforcement bars should be removed and replaced with supports that have minimal visual impacts to character-defining features, such as the central emblem. The appearance and materials of the parapet should be repaired and restored using documentary evidence, and wall materials should be patched and refinished to match existing.

Nonoriginal vinyl windows should be removed in the least invasive manner possible, to avoid damaging adjacent historic fabric, surfaces, or materials. Using documentary evidence or extant original windows, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames. Similarly, the altered original window on the façade should be replaced and its original character/appearance restored.

2340 STOCKTON STREET (ES-1)

APN: 0018004

Construction Date: 1970

Architect/Builder: Wurster, Bernardi and Emmons (Donn Emmons, lead designer)

Previous Status: Category B

Previous CHR Status Code: N/A

Date of Past Surveys/Evaluations: N/A

AAU Acquisition Date: 1986

Current CHR Status Code: 6Z

Applicable Criteria: N/A

Historical Resource? No

Project Modifications Recommended? No

Summary of Evaluation Results: 2340 Stockton Street does not appear CRHR eligible under Criteria 1, 2, or 3, either individually or as a part of a historic district. In terms of Criterion 1, the property is not associated with any significant pattern of events, including early architectural or post-earthquake development in North Beach.

The building at 2340 Stockton Street was constructed for the Otis Elevator Company in 1970, and the company remained there until 1985. Otis Elevator Company was founded in Yonkers, New York in the middle of the nineteenth century. The company's San Francisco office opened by the turn of the twentieth century, and after the 1906 earthquake moved to Stockton and Beach Streets (on the subject property). That building was demolished, and a new factory and office building was constructed at 1 Beach Street in 1924. By that time, Otis Elevator Company had offices in over 100 cities throughout the United States.

The building at 2340 Stockton Street was neither the first building associated with the company, nor the first building in San Francisco associated with the company. The Otis Elevator Company at 1 Beach Street is listed in the NRHP for an association with the company. Furthermore, the building at 2340 Stockton Street does not appear to retain any direction associations with significant individuals. Therefore, the building at 2340 Stockton Street does not appear to possess the significance required for CRHR eligibility under Criterion 2.

Regarding associations with other owners and tenants of 2340 Stockton Street, including the radio station KMEL and the California Youth Authority, the building appears ineligible for listing in the CRHR under Criterion 2. Research did not reveal that any of the owners or occupants have made any significant contributions to local, state, or national history.

The commercial building at 2340 Stockton Street was designed by the notable Modernist firm Wurster, Bernardi, and Emmons. In considering the significance of the subject property, it is one of many Brutalist- and International-style commercial buildings designed by Wurster, Bernardi, and Emmons, as well as one of many Modernist commercial buildings constructed in San Francisco from the 1930s to 1970s. It exhibits many of the character-defining features associated with Brutalism and the International style, including poured-concrete construction, recessed windows that read as voids, repeating geometric patterns, strong right angles and simple cubic forms, and rectangular block-like shapes.

According to *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, a Brutalist building would need to be designed in a high-style interpretation of the style in order to meet local and state registration requirements for their architectural merit under Criterion 3.[66] Further, because the subject property is less than 50 years old, it would need to be of "exceptional importance" to be eligible for listing in the NRHP. Although the subject property was designed by a notable Modernist firm and exhibits many of the character-defining features of the Brutalist style, it is not a distinctive or outstanding example of the property type. It is not a high-style interpretation of the style, as is required by the evaluation criteria identified in *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* and does not appear eligible for local, state, or federal designation under Criteria C/3. The *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* provides multiple examples that are more representative of high-style Brutalist-influenced commercial architecture in San Francisco including: Transamerica Pyramid; Fox Plaza; Davies Medical Center; and the San Francisco State University Cesar Chavez Student Center; and an addition to the San Francisco Art Institute. Likewise, the historic context statement lists high-style examples of International-inspired commercial buildings that are more representative of the style than 2340 Stockton Street including: Crown-Zellerbach Building; Alcoa Building; Bethlehem Steel Building; John Hancock Building; and the Embarcadero Center.

Therefore, the building at 2340 Stockton Street does not appear eligible for listing in the CRHR.

Complete Historic Resource Evaluations (HREs) for Category B properties (including 2340 Stockton Street) is presented in the accompanying appendix for historic resources.

[66] City and County of San Francisco Planning Department, p. 203.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Larger, non-original windows installed on third story (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Installation of blade signs in 1987 (Permit 8701534)
- Installation of clearance bars at parking entrances in 2015 (AAU, Memo to SWCA, 2/2/2016)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Installation of vents in original sliding window openings on east elevation (AAU, Memo to SWCA, 2/2/2016)

INTERIOR

The interior of the subject property is largely characteristic of an office building dating to the early 1970s and does not appear to be extensively altered. The small lobby features painted brick walls and original imprinted concrete floors, with alterations including new track lighting, the installations of televisions on the northern wall, and a sliding barn-style door on the southern wall. The upper levels feature long linear hallways running the length of the building, with offices located off either end. Alterations include the partial removal of linoleum flooring, the partial replacement of doors, and the addition of track lighting. In addition, a fire alarm and sprinkler system was installed in 2012 (Permit 211204037467).

620 SUTTER STREET (ES-20)

APN: 0283004A

Construction Date: 1917/1918

Architect/Builder/Designer (if known): Lewis P. Hobart

Previous Status: Category A

Previous CHR Status Code: 3S; Category I, Article 11, Kearny-Market-Mason-Sutter Conservation District

Date of Past Surveys/Evaluations: 1976; 1978; 1990

AAU Acquisition Date: 2005

Current Finding of Eligibility: 3S

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

The former YWCA at 620 Sutter Street is a mid-rise, Georgian Revival style building constructed in 1918. It features rectilinear massing and is set to flush to the sidewalk on a rectangular, sloped lot. Constructed of stone and brick, it is nine bays wide and has a tripartite design composition that is articulated by bolder ornamentation and forms on the lower and upper stories. The building has a flat roof and a parapet, which terminates in a shallow copping.

The primary elevation's tall first story is covered in stone and has a centered, recessed main entry. Rectangular multi-light casement and double-hung windows are arranged symmetrically on the elevation. The windows on the first, second, and seventh stories are bordered by detailed arched and rectangular stone surrounds. While there are window openings on the second through seventh stories of the eastern bay of the elevation, there are no window frames installed in the openings, which appears to be original to the building's construction. Stone medallions are located above windows on the second and seventh story. Decorative metal railings are located in front of the seventh story windows. Awnings have been added over the main entry and the eastern personnel door on the first story.

Figure 148. 620 Sutter Street.

Figure 149. 620 Sutter Street, first and second story of the primary elevation.

Figure 150. 620 Sutter Street, close up of the main entry on the primary elevation.

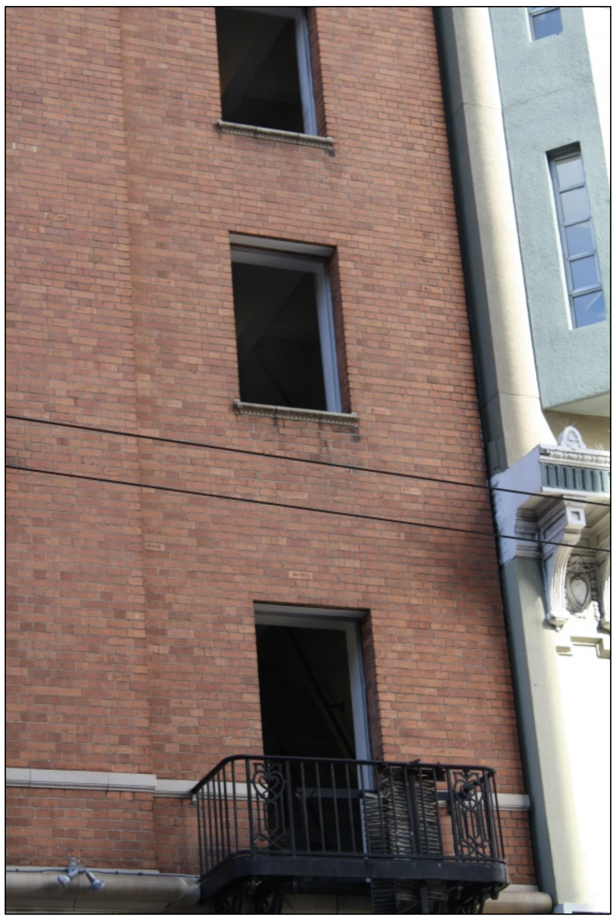


Figure 151. 620 Sutter Street, close up of the eastern window openings without window frames on the primary elevation.

A portion of the eastern elevation is visible from the second story to the seventh story. The patterns in fenestration and materials usage established on the primary elevation have been retained on all visible portions of the secondary elevation.

Figure 152. 620 Sutter Street, northern perspective of the south and west elevations.

Through the main entry is a large rectangular lobby that has been largely altered with modern materials. It is bordered by open rooms, which previously housed a nonoriginal bar and hair salon. Other communal spaces located off the lobby include an indoor pool and a performance theater. Although the theater has been altered, the pool appears largely intact both in materials and design. With the exception of the second and seventh floors, which feature dining accommodations and a dance studio respectively, the upper floors are residential and have identical floor plans. Character-defining features found throughout the interior include decorative molding, and original doors, transoms, frames, and wainscot.

Figure 153. Interior lobby of subject property.

Figure 154. Example interior of upper floors of subject property.

Figure 155. Interior pool of subject property.

SITE HISTORY

620 Sutter Street was constructed in 1918 for an estimated cost of $230,000. The seven-story building, with basement, was designed by architect Lewis P. Hobart (1873-1954). A native of St. Louis, Missouri, Hobart received his degree in architecture from the University of California and after practicing in New York for two years returned to California in 1906. He remained in San Francisco until his death, designing a number of notable buildings in the city including Jeweler's Building (1908), Grace Cathedral (designed in 1910), the Academy of Sciences (1915-1931), and the Union Square Macy's Department Store (1928).[67]

In his design for the new YWCA building, the *San Francisco Chronicle* detailed Hobart's approach:

> Everything possible has been done by the architect, Lewis P. Hobart to make this building homelike in every respect on the theory that a structure of its kind should be in character of a large complex home rather than as a type of hotel. This though is worked out in the general interior arrangement, which separates the living-rooms from the public part of the building.
>
> The main entrance vestibule will open into a large living-room, which will among other interesting features will have a great open fireplace carved into Bedford stone… In the rear will be an auditorium with a seating capacity of 500 persons: also a gymnasium and swimming pool, the latter decorated in warm Popeian wall colors.
>
> Across the entire front of the second story will be a cafeteria to be open to the public at all times… Executive offices, classes and club and rest rooms will be arranged on the third floor.
>
> The next three floors will be devoted exclusively to hotel rooms for members having permanent residence in the building and for visiting members. Separate living-rooms, serving and tea rooms will be in this section.
>
> On the seventh floor will be the library, supper and board rooms, all convertible into a large room for parties or theatrical parties.[68]

The YWCA would occupy the building for the following 70 years, during which time they would complete a number of alterations to the building consistent with its ongoing use. In 1988, the building was sold to William Ferndon who converted the building for use as a hotel. Ownership subsequently transferred to Union Square Hotels in 2000 before the property was eventually purchased by AAU in 2005 (building permits).

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

[67] Carey & Co., Inc., California Department of Parks and Recreation (DPR) 523 Series Form for Glen Park Elementary School, 3 June 2009. On file with the San Francisco Planning Department.

[68] "Y.W.C.A. Home Will be Open Early in Fall," *San Francisco Chronicle*, 16 March 1918.

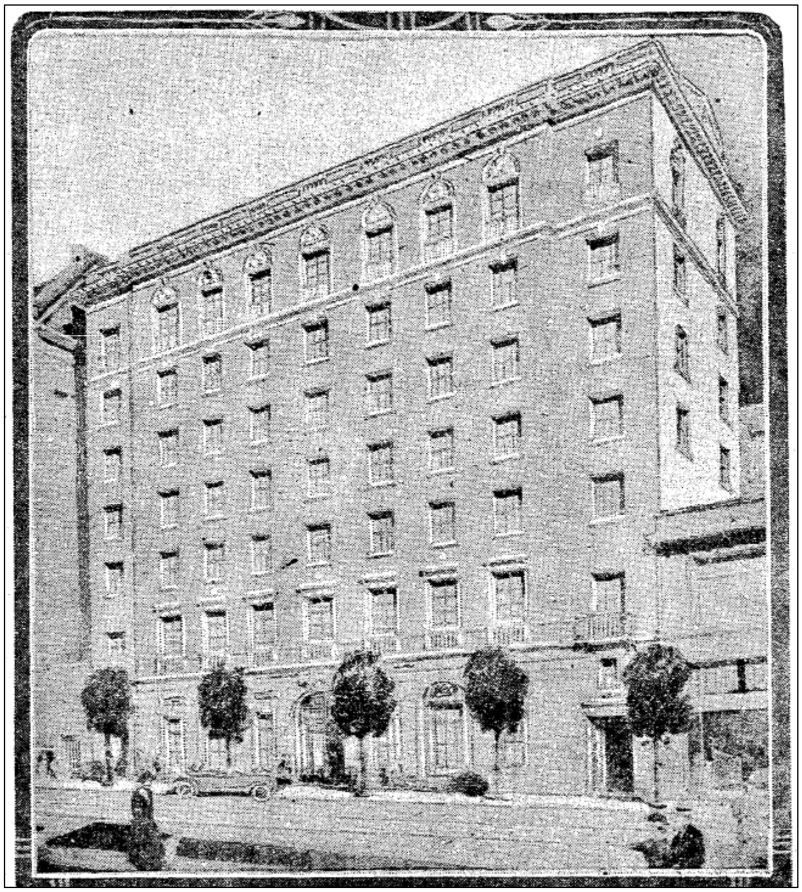


Figure 156. 1918 rendering of 620 Sutter Street. (Source: *San Francisco Chronicle*, March 1918)

Figure 157. 1976 photo of 620 Sutter Street. (Source: San Francisco Planning Department)

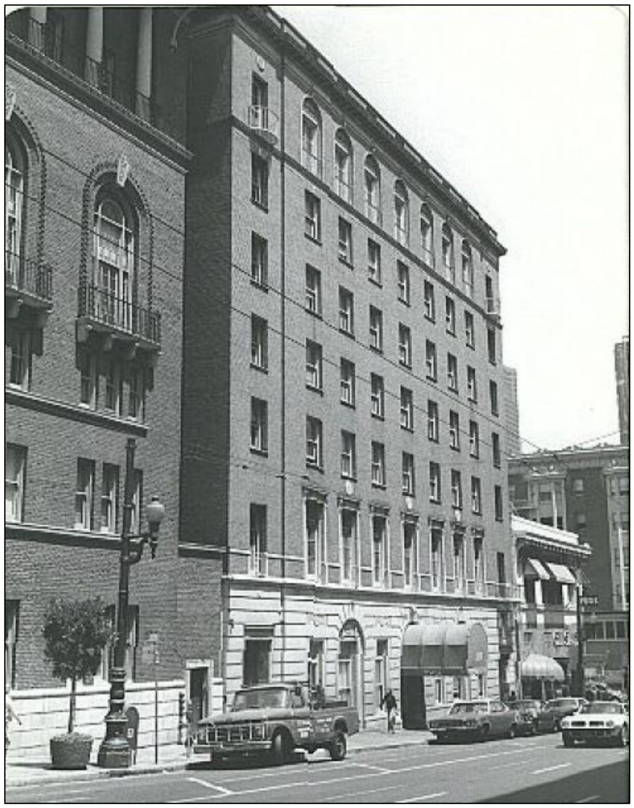


Figure 158. 1976 photo of 620 Sutter Street (with entrance awning). (Source: San Francisco Planning Department)

Figure 159. 1938 Aerial Photograph, 620 Sutter Street. (Source: Environmental Data Resources)

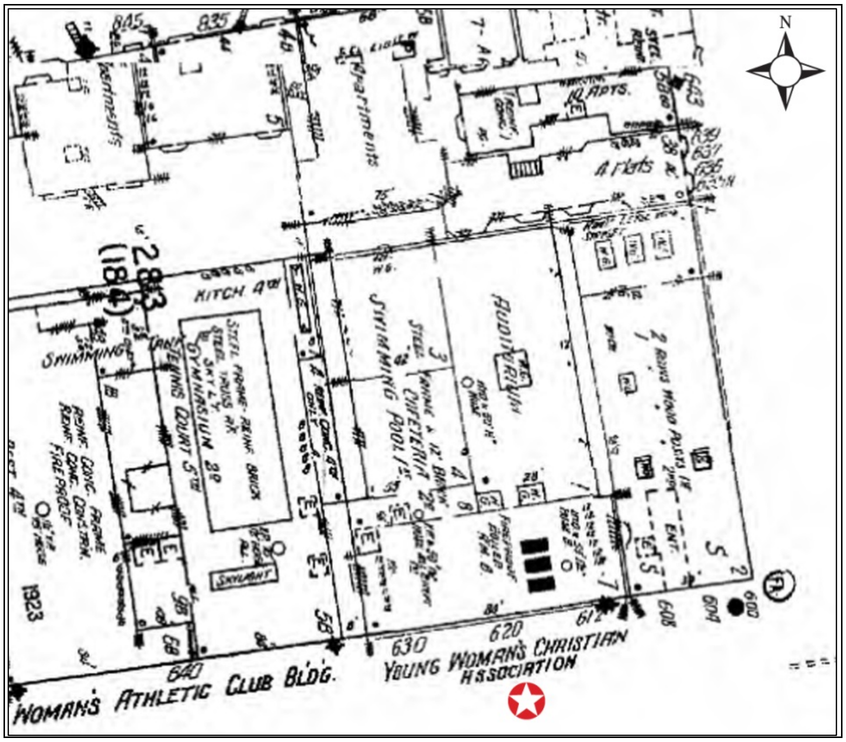


Figure 160. 1948 Sanborn Fire Insurance Map, 620 Sutter Street. Source: Environmental Data Resources, 2015.

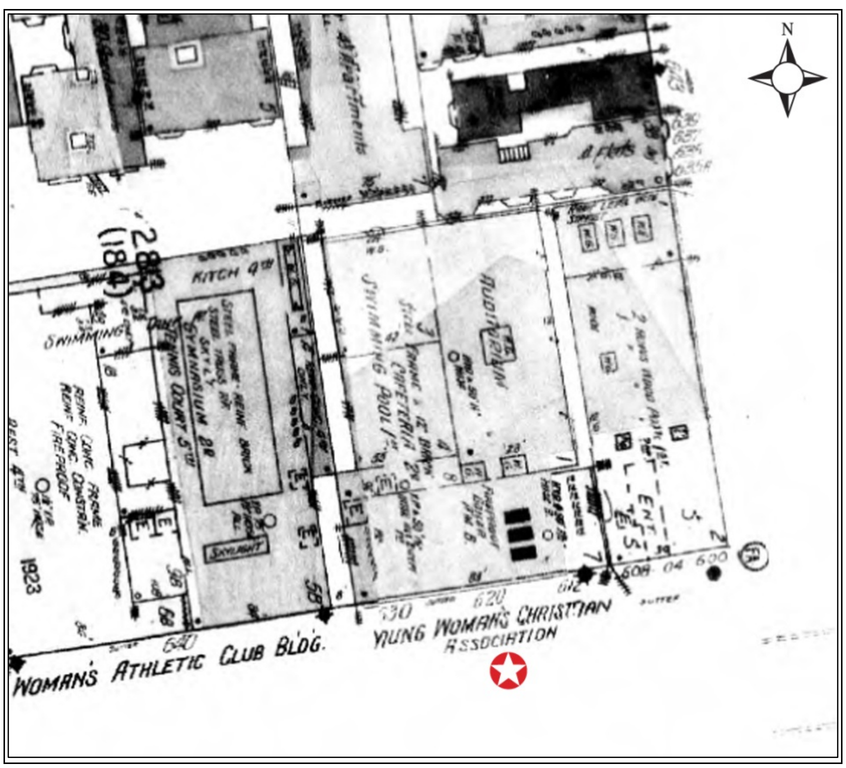


Figure 161. 1986 Sanborn Fire Insurance Map, 620 Sutter Street. (Source: Environmental Data Resources)

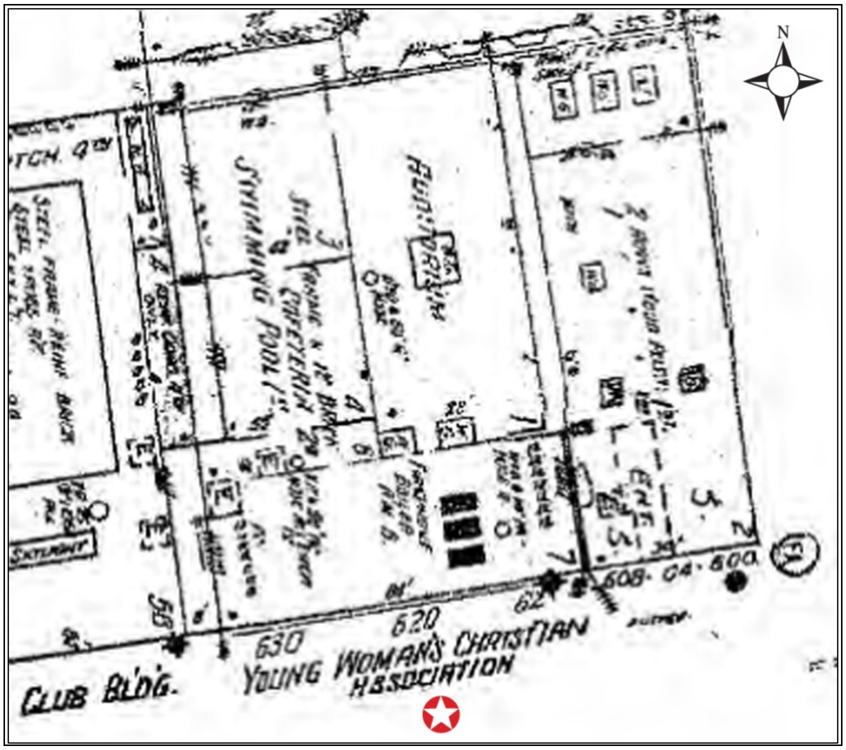


Figure 162. 1999 Sanborn Fire Insurance Map, 620 Sutter Street. Source: Environmental Data Resources, 2015.

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 620 SUTTER STREET / APN: 0283004A

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 20, 1917	78208	Young Women's Christian Association	Lewis P. Hobart	$150,000	Construct seven-story concrete building, with brick exterior, measuring 137'-6" depth by 92'-6" wide.
Oct. 29, 1917	79826	T. A. Ryland (for 630 Sutter Street)	C.A. McNally	$170	Present retaining wall at front of lot to be underpinned. Back part of building to be underpinned.
Jan. 2, 1920	90371	Young Women's Christian Association		$500	To erect a skeleton electric letter sign single faced on roof, as per blue prints herewith in closed on galvanized steel structure.
Apr. 1, 1924	126055	Young Women's Christian Association		$500	Alter and install new sidewalk.
June 2, 1924	128187	Young Women's Christian Association	Julia Morgan	$3,000	Proposed additions to consist of ten showers and twenty-eight dressing rooms.
July 28, 1925	141295	Young Women's Christian Association		$500	Remove and replace sidewalk lights.
Aug. 18, 1927	163903	Young Women's Christian Association	Julia Morgan	$16,000	To remove some wood partitions in the 3rd floor and to rearrange same kind necessary doors to match. To put in new oak stains from first to second floor. To re arrange toilets on 2nd floor and to put in six sets of large doors. Paint interior.
Jan. 7, 1937	24085 (24779)	Young Women's Christian Association		$120	To erect one (1) neon electric display - double faced sign on front of building.
Mar. 15, 1949	115532	Young Women's Christian Association		$5,000	Hot & cold water pipes to be changed to copper piped. Remove metal lath and plaster and replace convenience outlets and switch in bedrooms.
June 23, 1950	128606 (117020)	Young Women's Christian Association	Donald B. Kirby & Thomas B. Mulvin	$2,000	Lower height of existing wood partitions; build new office (door, window, and floor).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					Alter cafeteria equipment. Remove existing wood walk-in refrigerator box.
Aug. 24, 1937	29599	Young Women's Christian Association		$298	Removing broken skylights in the west area way, 2nd floor level. Sheeting in these openings with 2x6 header cinch bolted to the wall with 2x4 joists. Installing four skylights, each 3' x 5' wire ribbed glass.
Feb. 2, 1951	134603 (122136)	Young Women's Christian Association		$5,000	Alteration to Lobby – install new metal stud, lath/plaster partitions, remove and relocate electrical outlets, re-route plumbing pipes that are incased in false wood column that is to be removed. Remove and relocate certain doors.
May 31, 1955	175665 (157202)	Young Women's Christian Association		$3,000	Remove sidewalk light panels and concrete sidewalk. Install 5 ½" structural sub slab reinforced with membrane and 3" concrete walk top.
Dec. 19, 1955	181444	Young Women's Christian Association	Donald Beacon Kirby & Associates	$20,000	Rehabilitate dressing room facilities in basement. This consists of the following: Hubbellite floor topping, new wood and plaster partitions, resurface pool stairway with non-slip terrazzo, and miscellaneous repairs.
June 12, 1964	295276 (268380)	Young Women's Christian Association	Donald Beacon Kirby & Associates	$25,000	1st floor: move partitions, install new men's toilet, new fixtures in ladies toilet. 2nd floor: rearrange partitions, install two toilet rooms, change 3 windows to doors, provide new fire escape. 3rd floor: provide new fire escape, move partitions and doors. 4th floor: rearrange partitions, add 8 baths, change window to door opening on roof, provide new fire escape. 5th floor: add 4 baths, remove tubs install showers. 6th floor -same as 5th

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 15, 1965	316362 (282379)	Young Women's Christian Association		$2,400	Convert existing offices to hotel rooms, and install bath.
June 15, 1965	316362 (282379)	Young Women's Christian Association		$2,400	Convert seven (7) former business offices into hotel rooms.
Jun. 13, 1967	338580 (303004)	Young Women's Christian Association		$897	Install new door closers where indicated. Close certain transoms. Remove dead locks.
Mar. 13, 1967	340689 (305318)	Young Women's Christian Association		$4,825	Fire sprinkler system being installed to comply with San Francisco Building Code Office Bulleting No. 64-11 and fire prevention Office Bulletin No. 37.
July 7, 1967	345258 (309410)	Young Women's Christian Association		$3,500	Plumbing for rest rooms in meeting room area. 2nd floor, four toilets tub with shower. One ceiling steam heat unit in meeting room. Remove magnesite bas as required in meeting room patch broken area with plywood and install 1/8" vinyl asbestos tile and rubber base. Enclose bath room area with metal studs and sheet rock (one side only)
July 13, 1967	345465 (309376)	Young Women's Christian Association		$930	Alter fire sprinkler - work on 2nd floor.
Mar. 20, 1968	354883 (318199)	Young Women's Christian Association		$988	Install one pair of aluminum doors, frame and transoms.
July 1, 1968	358794 (321896)	Young Women's Christian Association		$1,982	Interior alterations on 2nd floor bathrooms (see original permit for more details).
Jan 13, 1969	365619 (328167)	Young Women's Christian Association		$500	2nd floor – one new wall 24 ft. long

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 10, 1969	374529 (336138)	Young Women's Christian Association		$2,000	Install 48 ft. of 2x4 metal studs and 5/8" sheetrock. Partition new acoustical ceiling. This work to be done on 2nd floor rear kitchen area. Area to be divided into two areas.
Mar. 4, 1970	380855 (341829)	Young Women's Christian Association. (Attention: Miss Traphagen)		$885	Remove two bath tubs, 1 on 4th floor and 1 on 5th floor. Install pre-cast shower pans, approx. 32" by 32". Frame around shower pan with metal studs, 5/8" sheet rock and install ceramic tile on walls set in grout. Tempered glass shower doors.
Aug. 4, 1970	387114 (341120)	Young Women's Christian Association		$3,800	Install kitchen cabinets in an area that was formerly a kitchen. This installation is for class room purposes. (No walls or partitions to be installed).
Oct. 16, 1974	440200 (394024)	Young Women's Christian Association		$4,000	Build walls 8 ft. x 16 ft. with wire mesh. Each wall shall have three teller windows. Bullet resistance tempered glass for the six windows. Money tilts for each window. Two 1 hr. assembly doors, one placed at entrance, one at exit (see original permit for more details).
Mar. 17, 1975	444568 (397808)	Young Women's Christian Association		$599	Main entrance canopy, standard pipe and canvas.
Jun. 24, 1980	8004836 (461420)	Young Women's Christian Association		$10,000 / $9,500	Saint Francis Meals Service, kitchen to warm food: stoves (no burners) warmer and refrigerator, outlets + electrical circuit panel box.
Mar. 26, 1981	8102779 (470515)	Young Women's Christian Association	(Engineer) Martin, Cagley & Nishkian	$50,000	Parapet strengthening work.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 11, 1983	8300328 (497857)	Young Women's Christian Association	Gensler & Associates	$30,000	Remodel locker room. New plumbing, electrical, ventilation and finishes.
Apr. 25, 1985	8504235 (533212)	Young Women's Christian Association	Barcelon & Jang (Wayne Barcelon)	$20,000	Install ventilation system in the pool area. Install new hot water tank.
May 13, 1985	8504970 (532036)	Young Women's Christian Association		$1,700	To bring building into full compliance with the provisions of the municipal code as required by Division. of Apt. and Hotel inspection report.
July 11, 1985	8507332 (540323)	Young Women's Christian Association	Stevens + Associates (Myles Stevens)	$35,000	Renovation of men's locker room located in basement. Renovation includes electrical, plumbing, carpentry, and finish work.
Aug. 17, 1987	8711732 (578513)	YWCA Executive Offices	Asian Neighborhood Design	$100,000	Minor work, (non-substantial change), demo, handicap (ADA) restrooms.
Oct. 20, 1987	8715083 (582531)	Young Women's Christian Association	Asian Neighborhood Design (R. Thomas Jones)	$40,000	Structural Work at existing theater. At 1st floor: install new telescoping seating, grid, modify floor to support seating, install overhead light grid.
May 4, 1988	8805732 (589733)	Young Women's Christian Association	Daniel C. Funk	$1	Revision to original Application #8711732. To change location of men's room.
June 30, 1988	8808865 (594841)	William Ferdon	Daniel C. Funk	$80,000	Room alterations; add baths to existing rooms.
July 29, 1988	8810768 (595704)	Pat & Bill Ferdon	Gerard Gibbons	$6,800	Replace existing hotel lobby door with new wood door & frames. Doors to have safety glass and bottom wood panel. (Total installation of three new wood doors and frames.
Sept. 28, 1988	8814496 (602347)	Pat & Bill Ferdon	Gerard Gibbons	$8,000	Construct walls to enclose existing front tea room at hotel (non-structural). At hotel to provide for new hair salon.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 25, 1988	8816187 (615847)	William Ferdon	Daniel C. Funk	$45,000	Room alterations, add bath to six (6) existing rooms.
Mar. 17, 1989	8904159 (612616)	William Ferdon		$12,000	Three (3) Fire Escape balconies, Two (2) staircase ladders. One (1) counter-balance stair.
Dec. 27, 1990	9026100 (673337)	William Ferdon	Daniel C. Funk	$50,000	Hotel room alteration, increase seven (7) rooms on two floors only.
Mar. 22, 1991	9104659 (668968)	William Ferdon	Daniel C. Funk	$500	Renew #8806187.
Apr. 11, 1991	9105960 (700579)	Richmond Hill Construction		$6,000	Fully sprinkler to code.
Apr. 2, 1992	9205212 (696364)	Francisco Guevara (lessee)		$1,000	Erect signs.
Dec. 28, 1992	9222189 (718170)	Richmond Hill Construction		$5,000	Replace/install new exhaust hood, blower, return air & duct work.
Feb. 10, 1993	9302305 (715427)	William Ferdon		$500	For final inspection of permit #08816187.
Mar. 4, 1993	9303487 (727353)	William Ferdon	Daniel C. Funk	$15,000	Change use of existing kitchen food service to register guests only to serving food to the public. (Floor plan attached to permit).
Feb. 4, 1994	S.F. Property Info Permit: 9401897			$4,000	Renew Permit #9303487.
Feb. 9, 1994	S.F. Property Info Permit: 9401904			$1	Comply with Notice 1-5-94, complete work for Permit #8805732
June 30, 1994	9409688	Ferdon Brothers		$1	Renewal of Application #922218.
Nov. 14, 1994	S.F. Property Info Permit: 9418743			$3,500	Awning sign over entrance.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Feb. 10, 1995	9501979 (763923)	Ferdon Brothers	Daniel C. Funk	$1	To renew Permit #9303487.
Mar. 16, 1995	9503730 (765928)	William L. Ferdon III		$500	For final inspection for expired permits: Exp. #9301173, New #9401905. Final inspection #9409689.
Aug. 31, 1995	S.F. Property Info Permit: 9514174			$30,000	Comply with list of violations.
Feb. 6, 1996	9601944 (787252)	William Ferdon		$4,800	Re-roofing.
July 9, 1996	S.F. Property Info Permit: 9612209			$3,000	Comply with notice to merge rooms into Suites.
Feb. 7, 1997	S.F. Property Info Permit: 9702327			$900	New '3-8" wide door to replace existing double doors 2nd floor.
Oct. 30, 1997	S.F. Property Info Permit: 9721964			$100	Installation of canvas awning.
Oct. 30, 1997	S.F. Property Info Permit: 9721965			[no value listed]	Non-structural sign.
Sept. 11, 2000	200009110215 (921958)	Union Square Hotels, LLC		$57,000	Fire Alarm system: Smoke detectors, pull stations, heat detectors, and horn/strobe lights.
Apr. 1, 2008	S.F. Property Info Permit: 200804018460			$5,001	Painted (non-electric) single faced sign.
Nov. 16, 2009	S.F. Property Info Permit: 200911161273			$5,000	Obtain building permit to legalize existing awning 6' x 7' – 6" x 4' projection.
Nov. 16, 2009	S.F. Property Info Permit: 200911161276			$500	Non-electric sign at existing awning.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Mar. 22, 2010	201003228700 (1213457)	Sutter Taylor, LLC		$500	Removal of one (1) horizontal wall sign.
Apr. 6, 2011	201104063562 (1235780)	AAU		$5,000	Respond to complaint #201052693 to patch holes in existing telephone closet. 5/8" Type X Gyp board at rated walls.
Jan. 23, 2013	S.F. Property Info Permit: 201301238536			$1	To document change of use from Hotel to group housing.
July 24, 2014	S.F. Property Info Permit: 201407242074			$35,000	Renovate two existing non-compliant restrooms on ground level to full (ADA) accessibility compliance. Install new transition at ground level to meet accessibility compliance.
Dec. 24, 2014	S.F. Property Info Permit: 201412244503			$10,000	Two floors - Provide new Type 1 hood over proposed convection ovens in existing kitchen. Update existing kitchen make up air system. Install new prefabricated zero-inch clearance grease exhaust duct.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

620 Sutter Street was evaluated for eligibility for the California Register of Historical Resources (CRHR) as part of the current study. In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 620 Sutter Street appears CRHR-eligible individually under Criterion 1, as an exemplification of institutional development in downtown San Francisco in the post-1906 Earthquake Reconstruction period (period of significance is 1918). The property is also eligible under Criterion 1 for its approximately 70-year history as a YWCA (the period of significance is 1918 to 1988). The property qualifies individually under CRHR Criterion 3, as an excellent example of a Georgian Revival-style institutional architecture in downtown San Francisco (period of significance is 1918).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

620 Sutter Street retains integrity and remains CRHR-eligible.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Mid-rise height and rectilinear massing and building plan
- Nine bays wide, with parallel, symmetrical arrangement of recessed windows
- Site: set flush to sidewalk
- Tripartite vertical design composition, with bolder ornamentation/forms on ground story, finer detailing through middle floors, and elaborated ornamentation on top floor
- Brick/terra cotta sheathing and ornament
- Flat roof with no overhanging eaves
- Parapets, with centered medallion ornament
- Decorative quoining spanning ground floor
- Ornamental effect achieved through patterned, polychromatic brickwork and terra cotta
- Articulated fenestration treatment, with large window openings on first-floor,
- Centered, recessed primary entrance
- 2nd story windows with stone surrounds, decorative brackets, and lintels
- Top story windows have arched stone surrounds with keystones and decorative panel in arch
- Ornamental balcony railings frame top floor windows

Interior

- Spatial configuration and circulation of entrance lobby and offices
- Decorative molding and dentil course in lobby
- Curved vaulted ceiling
- Original doors, transoms, frames, wainscot

- Original (early update) elevator
- Original light fixtures (upper floors)
- Original pool with tile on walls, columns and pilasters
- Spatial configuration of theater area, with stage and auditorium space

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Awning over main entry added in 1975 by the YWCA (Permit 444568)
- Main entry doors replaced in 1988 by Pat & Bill Ferdon (Permit 8808865)
- Reroofing was completed in 1996 by William Ferdon (Permit 9601944)
- Awning at central entryway installed in 1994 (Permit 9418743)
- Extending barrel canopy installed in 1997 (Permit 9721964)
- Windows on the 2nd through 7th floors on the eastern edge of the main elevation are open voids. Although drawings and renderings from the original architect show planned windows in these locations, it appears that, by 1930 (historic photographs), the window and frames had already been removed, if they had ever been installed
- Removal of cornice (AAU, Memo to SWCA, 2/2/2016)
- Ground-level side doors replaced with solid metal personnel doors (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- The material covering the awning at the central entryway and the barrel canopy replaced
- Security camera added
- Lighting added to the first floor of the main elevation (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

The lobby appears to have been largely altered and reconfigured since the property was initially constructed. The lobby was divided into smaller spaces at various times to provide for a tea room and later a hair salon. Additional changes include the addition of ADA ramp, newer lighting fixtures, and removal of floor and wall materials. The upper floors appear largely intact featuring original doors, trim, wainscot, and light fixtures, with some have been replaced. The pool is also largely intact, although the light fixtures have been replaced and vinyl mesh pool mats have been placed around the pool perimeter. In addition, AAU obtained a permit for inspection of the fire alarm system and patched holes in a telephone closet (Permits 201002247104 and 201104063562).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

620 SUTTER STREET (ES-20)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Awning and Canopy Covers	Post-2005	Yes	No	No	N/A	Yes	N/A	N/A	N/A	No	Yes	Remove awning and canopy using least invasive means possible; patch and repair materials and refinish to match existing
Security Camera	Post-2005	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awning and Canopy Covers: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 2. The central entryway features detailed, ornamental terracotta surround, which is currently obscured by the opaque awning material. In addition, the building features a symmetrical design, articulated by the recessed central entryway and service entries on the ground level. The awning and extending canopy currently obscure and negatively affect the recessed voids, which contribute to the visual character of the property.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The installation of the security cameras resulted in minimal damage/obstruction to distinctive features and finishes.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 3. Installed at the central entryway as of 1975 (Permit 444568), the awning and canopy covers introduce an element inconsistent with the original design and character of the building, on a highly visible location.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Awning and Canopy Covers: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awning and Canopy Covers: The project complies with Rehabilitation Standard No. 5. The re-sheathing of the existing awning and canopy frames did not result in the loss of distinctive materials, features, or finishes.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage/obstruction to distinctive features and finishes.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Awning and Canopy Covers: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Awning and Canopy Covers: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Awning and Canopy Covers: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Awning and Canopy Covers: The project does not comply with Rehabilitation Standard No. 9. The awning and canopy materials obscure the ornamental door surrounds, which are historic features that were designed to be seen, and the overall rhythm and design of the facade.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awning and Canopy Covers: The project complies with Rehabilitation Standard No. 10. The awning covers and framing they sheath could be removed at a future date with no impairment to the building.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

ARTICLE 11 ANALYSIS

Although the Kearny-Mason-Market-Sutter (KMMS) Conservation District KMMS Design Standards discuss awnings, the focus relates primarily to storefronts and commercial properties rather than institutional properties such as the subject property. Some of the Design Standards presented apply nonetheless. Specifically, the Design Standards specify that awnings should not obscure character-defining features.[69] In the case of the subject property, the central entryway features detailed, ornamental terracotta surround, which is currently obscured by the opaque awning material. In addition, the building features a symmetrical design, articulated by the recessed central entryway and service entries on the ground level. The awning and extending canopy currently obscure and negatively affect the recessed voids, which contribute to the visual character of the property.

RECOMMENDATIONS

To facilitate compliance with SOIS and applicable Article 11 guidelines, awning covers and frames should be removed and the original entrance appearance restored. Following removal of the awning mounting hardware, perforations to and damaged areas in the masonry of the ornamental door surrounds should be patched, repaired, and restored to match existing in appearance (color, texture, detailing).

[69] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 7.

625-629 SUTTER STREET (ES-22)

APN: 0297014

Construction Date: 1921

Architect/Builder/Designer (if known): Samuel Hyman and Abraham Appleton

Previous Status: Category A

Previous CHR Status Code: 3S; Category II, Article 11, Kearny-Market-Mason-Sutter Conservation District

Date of Past Surveys/Evaluations: 1976; 1990

AAU Acquisition Date: 1968

Current Finding of Eligibility: 3S

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Constructed in 1921, 625-629 Sutter Street has a rectangular plan and set flush to the sidewalk. Set on a rectangular, sloped lot the building has a primary elevation facing Sutter Street and a secondary elevation fronting the alley behind the building.

The four-story building exhibits a Spanish Colonial and Churrigueresque style, constructed in concrete and covered in stucco. The asymmetrical and balanced design has a defied western bay. The building is capped with a flat roof with a stepped parapet over the western bay and projecting eave with decorative brackets over the rest of the building.

The primary elevation features an elaborated, centered recessed main entry centered in the eastern portion of the building and surrounded by Churrigueresque detailing. On either side of the main entry is a storefront with a recessed entry and transom widows above that are currently boarded with plywood. A third storefront is located on the first story of the western bay. A cornice line divides the commercial first story from the upper stores. Four rectangular windows are spaced evenly across each story, one in the western bay and the other three spaced throughout the eastern portion. The windows on the eastern bay feature pediments and sidelights on the second story and surrounds on the fourth story. On the western bay, Churrigueresque ornamentation surrounds the second and third story windows, and a decorative surround and sea shell details are featured on the fourth story. A wide band with Churrigueresque details and recessed panels separate the third and fourth story.

Window types utilized on the primary elevation include original wood and nonoriginal aluminum double-hung, multi-light, large fixed storefront windows, and fixed transom windows. Noncontributing awnings have been added over the storefronts.

Figure 163. 625-629 Sutter Street.

Figure 164. 625-629 Sutter Street, first story of the primary elevation.

A secondary elevation is visible from the alley. A metal stair provides access to the upper floors over the early one-story addition. Brick and board form concrete are visible on the elevation. Windows used in a variety of configurations include rectangular vinyl double-hung and casement windows.

Figure 165. 625-629 Sutter Street, close up of the main entry on the primary elevation.

Figure 166. 625-629 Sutter Street, western perspective of the south and rear eastern elevations.

SITE HISTORY

625-629 Sutter Street was designed in 1921 by architects Samuel Lightner Hyman (1885-1948) and Abraham Appleton (1887-1981). Appleton studied architecture at the University of California, Berkeley, Columbia University, and the *École des Beaux Arts*, before settling in San Francisco and establishing the firm of Hyman and Appleton in the early 1920s.[70] One of the firm's frequent clients was Laurence A. Meyers, a developer with whom the firm designed numerous buildings, including 302 Silver Avenue (Jewish Home for the Aged, 1923), 2100 Pacific Avenue (apartments, 1926), 1501 Divisadero Street (Sinai Memorial Chapel, 1938), 301 Leland Avenue (Visitation Valley School, 1937), and Portals of Eternity Mausoleum and Chapel (Hills of Eternity Memorial Park, 1934).[71]

In 1921, Meyers commissioned the firm to design 625-629 Sutter. When it was completed in 1925, four years later, the *San Francisco Chronicle* reported that

> [t]he building, which is the workmanship of Samuel Lightner Hyman and Abraham Appleton, architects, is a new departure in store buildings, representing a rich, old Spanish structure appealing to the aesthetic rather than the commercial taste.[72]

Ownership of the building changed on numerous occasions in subsequent decades, with various improvements undertaken by each occupant. Building permits indicate that, as of 1929, the building was owned by F.M Gilberd, who in April of that year added a one-story addition to the rear. By October of 1929, D.R. Eisenbach was listed as the owner; ten years later, in 1939, it was owned by S. Weisser. During the 1940s, the American Red Cross and the U.S. Army leased the building.

The building was owned by Herbert W. and Barbara F. Richards by April of 1946 before it transferred again to new owners Walter & Ross in October of that year. By 1959, U.P. Channon had taken ownership of the building. As of 1962, the building was owned by George B. McDonald and occupied at least partially by the June Terry Finishing School. In 1968, AAU took ownership of the building; since that time they have completed a number of alterations, most notably to the storefronts on the ground level of the main (north) elevation.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

[70] Daniella Thomson, "If You Don't Want to Find Anything, Don't Look Anywhere," *The Berkeley Daily Planet* 26 March 2010.

[71] Bloomfield, Anne and Michael R. Corbett. *Uptown Tenderloin Historic District National Register of Historic Places Registration Form*, 2008.

[72] "Three Stories Will Be Added," *San Francisco Chronicle*, 7 March 1925.

Figure 167. 1964 photograph, 625-629 Sutter Street. (Source: San Francisco Public Library History)

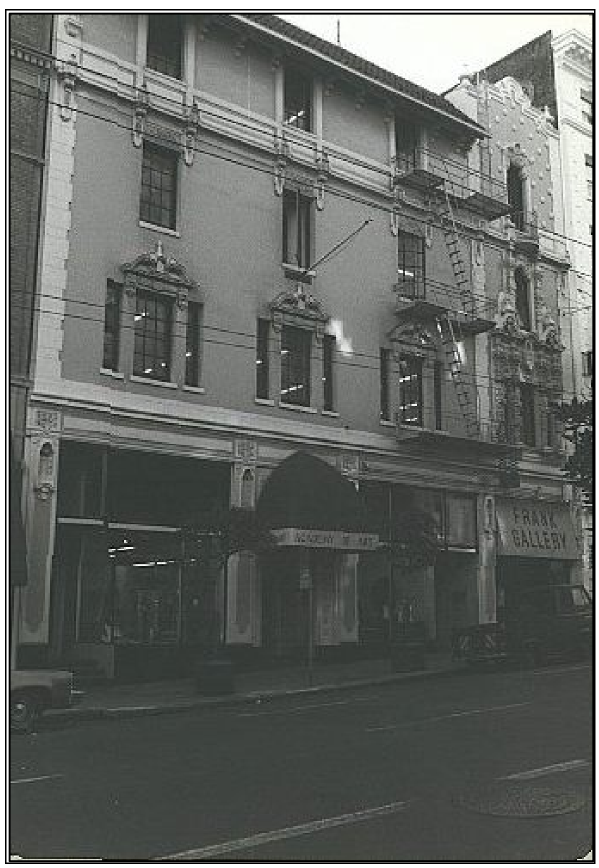


Figure 168. 1976 photograph, 625-629 Sutter Street. (Source: San Francisco Planning Department)

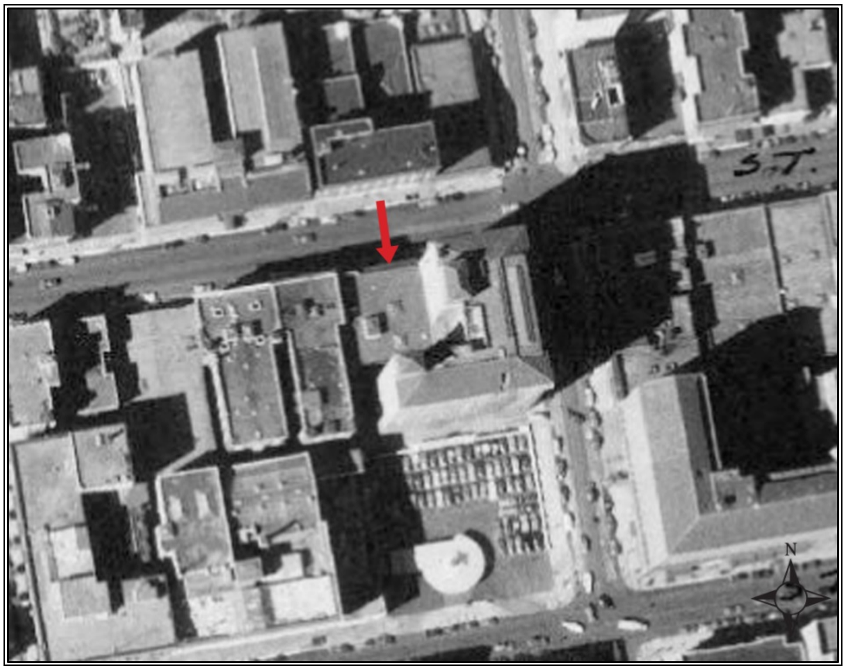


Figure 169. 1938 Aerial Photograph, 625-629 Sutter Street. (Source: Environmental Data Resources)

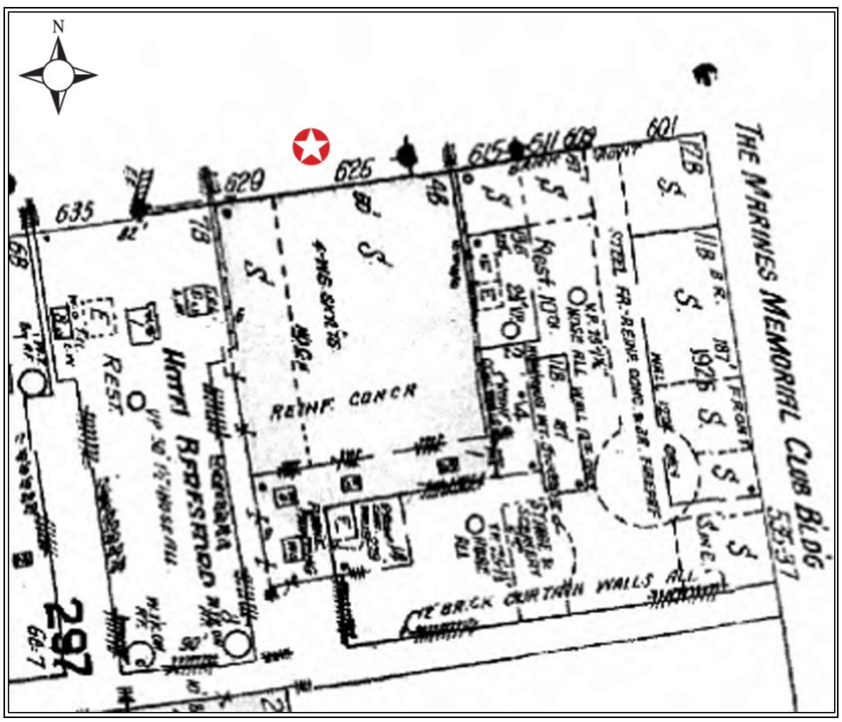


Figure 170. 1948 Sanborn Fire Insurance Map, 625-629 Sutter Street. Source: Environmental Data Resources, 2015.

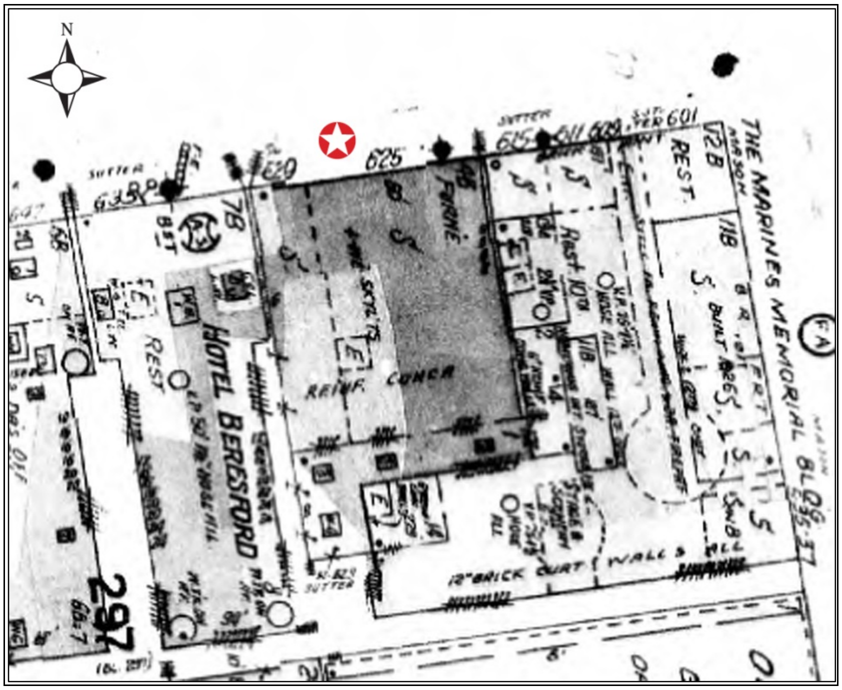


Figure 171. 1974 Sanborn Fire Insurance Map, 625-629 Sutter Street. (Source: Environmental Data Resources)

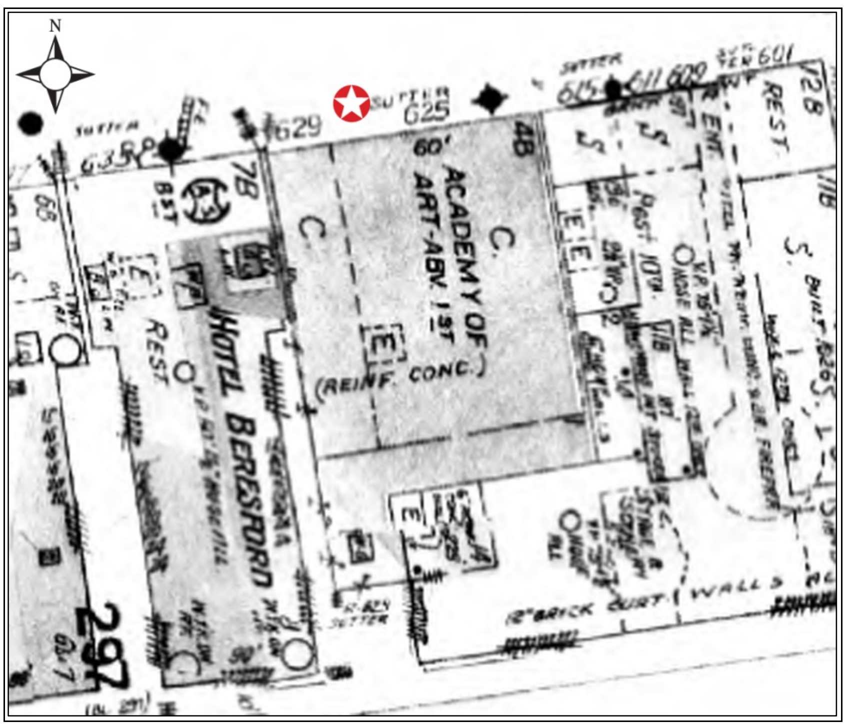


Figure 172. 1986 Sanborn Fire Insurance Map, 625-629 Sutter Street. (Source: Environmental Data Resources)

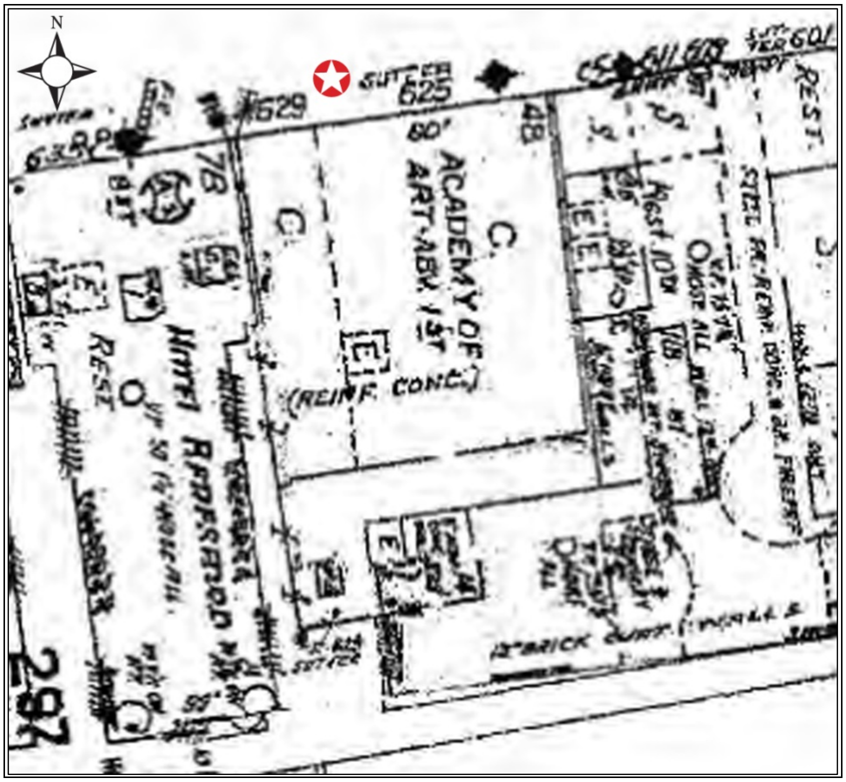


Figure 173. 1999 Sanborn Fire Insurance Map, 625-629 Sutter Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 625-629 SUTTER STREET / APN: 0297014

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 20, 1921	100287	Laurence A. Meyers	Samuel L. Hyman	$15,000	Construct a concrete building.
Apr. 5, 1929	177628 (135814)	F.M. Gilbert		$1,500	Build one-story building, at rear for use as store room.
Oct. 1, 1929 (Oct 17, 1929)	181666 (139584)	D. R. Eisenbach		$200	Remove sidewalk lights and install new.
June 30, 1939	45157 (43908)	S. Weisser		$100	Erect 2 face neon swing sign.
June 27, 1941	63334 (60788)	American Red Cross		$25	Hang single faced neon sign (Red Cross) over door way of building.
Jan. 25, 1943	70768 (67717)	U.S. Army (lessee)	U.S. Engineers	$7,000	New offices; toilet rooms, electrical, plumbing, painting, etc.
Apr. 1, 1946	87482 (83102)	Herbert W. and Barbara F. Richards		$21,000	Remove temporary half-height partitions, open plumbing etc. (installed by Army Service Command). Install new office, store, and studio arrangement as per plan submitted; including partitions, necessary plumbing, wiring, floor refinishing, and redecoration.
Oct. 14, 1946	92217 (85736)	Waters & Ross		$150	Move small neon sign.
Sept. 11, 1959 (Apr. 8, 1960)	222920 (209594)	U. P. Channon		$200	Two 20’ by 8’ high partition for stock room.
June 15, 1962	267194 (235979)			$200	One (1) complete new awning - steel tubing and canvas covered.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 3, 1962	270727 (242274)	George B. McDonald		$8,000	New partitions to be constructed, some old partitions to be altered. One sink to be installed. Painting to be performed.
Nov. 7, 1962 (Nov. 15, 1962)	274177 (244697)	June Terry Finishing School (lessee)		$750	Install sign on building.
May 21, 1975	445819 (399572)	AAU (lessee)		$1,800	Install projecting sign: 4' wide by 30' high.
June 25, 1975	447623 (466657)	AAU (lessee)		$1,600	Install double-faced sign on building.
July 16, 1975 (Aug. 11, 1975	449072 (402215)	AAU		$750	Install three (3) awnings with galvanized steel frame work with canvas covering. Frame work attached to building with lags and shields.
Aug. 6, 1975 (Aug. 11, 1975)	449583	AAU		$500	Install non-electric painted sign on awning.
June 16, 1982 (July 16, 1982)	8204885 (491839)	Richard Steven		$91,000	To install a complete automatic fire sprinkler system for the entire building.
July 22, 1982 (Aug. 13, 1982)	8205978 (492604)	AAU	P. Theodore Anderson	$16,000	Bracing of existing parapet walls as per notice from San Francisco parapet safety section, Fil No. 277; Block 297, Lot 14.
Nov. 4, 1982 (Nov. 30, 1982)	8209072 (495666)	AAU	P. Theodore Anderson	$850	Construction of new concrete floor slab at existing elevator room, penthouse floor.
July 28, 1983 (Aug. 30, 1983)	8307253 (505368)	AAU		$2,000	Demo interior partitions only (non-structural) 3rd and 4th floors.
May 12, 1989	8908246 (614007)	AAU	Peter Culley & Associates	$2,500	Exploratory demolition; remove approx. 575 sq. ft. of the existing non-structural concrete floor slab on grade located in the rear basement area of building.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 13, 1992 (June 23, 1992)	9207785 (700269)	AAU	Land Development Architecture	$1,180	Repair stone steps on fire escape and install gat in top of fire escape.
Nov. 9, 1995	9519059 (782365)	AAU		$20,000	Re-roof of main building.
Dec. 9, 1997	9724675 (839046)	AAU	Dale Meyer Associates	$9,600	Barrier removal by the creation of an accessible darkroom. All interior work located in one room. Install darkroom door and two sinks.
Jan. 25, 2010	S.F. Property Info Permit: 201001255234			$10,000	Erect an electric illuminated double faced projecting sign.
Feb. 9, 2010	S.F. Property Info Permit: 201002096179			$5,000	Installation of three (3) awnings, 6' high x 15'-6", 16'-8", 13'-6" x 3'-0" projection.
Apr. 1, 2010 (May 3, 2010)	201004019443 (1210818)	Stephens Institute (AAU)		$90,000	Installation of new Fire Alarm system throughout.
Oct. 26, 2010 (Nov. 5, 2010)	201010263774 (1225202)	AAU		$60,000	Barrier removal work. Correct egress doors and add and relocated accessible drinking fountains (3 total).
May 9, 2011	S.F. Property Info Permit: 201105095671 (*permit filed but never issued)			$1,000	Painted (non-structural) sign.
Feb. 23, 2015 (Mar. 11, 2015)	201502239071 (1351322)	AAU		$20,000	To abate complaint No. 201475011; provide structural engineer report as requested and repair in kind.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

625-629 Sutter Street was evaluated for eligibility for the California Register of Historical Resources (CRHR) as part of the current study. In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 625-629 Sutter Street appears CRHR-eligible individually under Criterion 1, as an exemplification of widespread commercial development/recovery in downtown San Francisco in the post-1906 Earthquake Reconstruction period. The property also qualifies individually under CRHR Criterion 3, as an excellent example of Spanish Colonial/Churriguersque commercial architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

625-629 Sutter Street retains integrity and remains eligible for the CRHR. The period of significance is 1921, corresponding with the construction of the building.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Four-story with a defined western bay featuring Churrigueresque ornament around the westernmost 2nd and 3rd floor windows; sea-shell details on the western 4th floor wall and a stepped parapet
- Churrigueresque detailing, articulated entryway
- Decorative pediments above the 2nd floor windows
- Decorative brackets
- Asymmetrical but balanced design composition
- Stucco and concrete wall surfaces
- Transom windows above ground-level storefronts
- Cornice diving the storefronts from the upper stories
- Original double-hung and steel casement windows on rear exterior

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- The first signage was installed in 1939 under Permit 45157 and has been updated multiple times
- The first awning was installed in 1962 (Permit 267194)
- All four entry doors appear to have been replaced (visual observation; AAU, Memo to SWCA, 2/2/2016); three are aluminum doors, and one appears to be a newer replacement door

Post-AAU Alterations:

- Three awnings were installed by AAU in 1975 (Permit 449072). Although there is no permit, the current awnings most likely have had the fabric replaced with the AAU logo.
- The existing signage appears to have been installed by AAU in 2011 (Permit 201105095671 [*permit filed but never issued])
- Window replacements (aluminum) on the 2nd, 3rd, and 4th floor. The original windows are visible on the 1974 photograph attached to the 1976 Citywide Architectural Survey; however, replacement aluminum windows are visible in the photographs attached to the 1977 survey by Charles Hall Page & Associates, Inc. conducted for San Francisco Heritage
- The storefront transom windows appear extant; however, many have been removed and/or in-filled with plywood panels. In the 1974 Citywide Architectural Survey photograph, the transom windows appeared intact. Available permits did not document this alteration.

SECONDARY ELEVATIONS

Post-AAU Alterations:

- Metal stairway with metal gate stretches over the rear one-story addition constructed in 1929, meets the building at the 3rd floor, turns the corner and climbs alongside the building to the 4th floor (AAU, Memo to SWCA, 2/2/2016)
- Glass metal doors added at landing from the 3rd floor to the metal stair (AAU, Memo to SWCA, 2/2/2016)
- Wood lattice fence (AAU, Memo to SWCA, 2/2/2016)
- Replacement doors (metal double-doors) on one-story addition (AAU, Memo to SWCA, 2/2/2016)

Interior Alterations:

Among other interior alterations over the years, fire life safety systems and sprinklers were installed in 2010 (Permit 201004019443).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

625-629 SUTTER STREET (ES-22)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Awnings	1972	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Window awnings should be removed using the least invasive means possible, with materials repaired and refinished to match existing. If new awnings installed, they should follow Article 11 guidelines and KMMS Design Standards.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
Window Replacements	Post-1976	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Remove aluminum and double-hung windows using least invasive means possible, replace with windows matching historic fenestration in appearance, use, configuration, framing materials, thickness and profile; repair and refinish surfaces to match existing
Signage	2011	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove sign, repair/refinish surfaces to match existing

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Awnings: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Awnings: The project does not comply with Rehabilitation Standard No. 2. The awnings obscure the transom windows and part of the storefronts, both of which are character-defining features and key design components of the overall building design.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that upper stories of the building displayed characteristic multi-light casement windows. These distinctive features were removed and replaced with primarily multi-light, aluminum-frame double-hung windows. The removal of the original windows resulted in the loss of distinctive materials and features that characterized the property.

Signage: The project does not comply with Rehabilitation Standard No. 2. The blade sign is attached to the building by two brackets located on the second floor, between the two easternmost windows. The sign interrupts the rhythm and design composition of the façade.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Awnings: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have awnings during the period of significance. The awnings introduce a highly visible feature on the primary elevation that is not consistent with the historical character and appearance of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The altered windows introduce a feature on the primary elevation that is not consistent with the character of the historic windows.

Signage: The project does not comply with Rehabilitation Standard No. 3. The signage introduces a highly visible feature on the primary elevation that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Awnings: Rehabilitation Standard No. 4 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 4 is not applicable to this project.

Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Awnings: The project does not comply with Rehabilitation Standard No. 5. The awnings introduce highly visible, noncontributing features that obscure and detract from the property's distinctive materials and features, as well as its overall design.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The installation of the current windows resulted in the loss of the historic materials and features that characterized the property.

Signage: The project does not comply with Rehabilitation Standard No. 5. The signage introduces highly visible, noncontributing features that obscure and detract from the property's distinctive materials and features, as well as its overall design. The installation of signage also appears to have involved damage to distinctive, historic materials and fabric (i.e., the smooth stucco finish of the facade).

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Awnings: Rehabilitation Standard No. 6 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were deteriorated and the project replaced rather than repaired them.

Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Awnings: Rehabilitation Standard No. 7 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 7 is not applicable to this project.

Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Awnings: Rehabilitation Standard No. 8 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 8 is not applicable to this project.

Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Awnings: The project does not comply with Rehabilitation Standard No. 9. The awnings obscure the transom windows and portions of the storefronts, which both contribute to the historic character of the property and are important in its ability to convey its historic significance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to the original multi-light windows, which both contribute to the historic character of the property and are important in its ability to convey its historic significance.

Signage: The project does not comply with Rehabilitation Standard No. 9. The scale and proportion of the blade sign is not consistent with the character of the building and interrupts the rhythm of windows, obscuring them from view when approaching the building from the east or west. Further the attachment of the sign has likely resulted in the damage to the historic stucco on the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Awnings: The project complies with Rehabilitation Standard No. 10. Although installation of the awnings may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although installation of the new windows resulted in damage to historic materials, new windows can be installed that replicate the materials and window pane configuration of the original multi-light windows.

Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the blade sign may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

ARTICLE 11 ANALYSIS

The blade sign is currently attached to the building by two brackets located on the second floor between the two most eastern windows. The sign interrupts the rhythm of the windows and obscures them from view when approaching the building from the east or west. The fenestration pattern contributes to the asymmetrical but balanced design composition, which is considered a character-defining feature. Design Standards for the Kearny-Market-Mason-Sutter (KMMS) Conservation District discourage the placement of signs (1) in such a way that character-defining features are obscured and (2) above the window sill of the first residential floor.[73] The projecting blade sign is in noncompliance with each of these guidelines, as it obscures the fenestration pattern of the building and extends above the sill of the first upper-level floor.

[73] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 5.

Further, the sign appears to be an internally illuminated box sign with plastic lenses that is currently are powered by conduit, which is exposed and attached to the face of the building. Under Article 11 guidelines, illuminated box signs are not permitted and conduit must be concealed and never attached or left exposed to the face of the building, the sign structure, or the sign itself.[74]

Although the awnings are compliant with aspects of the KMMS Design Standards, including being located within the frame of storefront openings and not blocking piers and lintels, the awnings currently obscure the transom windows, which are considered character-defining features. Per the KMMS Design Standards, awnings should not obscure transom windows or cover any of the architectural or character-defining features of a building.[75]

RECOMMENDATIONS

To facilitate compliance with SOIS and applicable Article 11 guidelines, the projecting wall sign should be removed and the original physical appearance of wall materials replaced. If a new sign is to be installed, it should follow the guidelines of the KMMS Design Standards and be placed in a location that does not obscure character-defining features, installed in a manner that results in minimal damage to historic materials, and have indirect illumination.

The current window awnings should be removed using the least invasive means possible, with materials repaired and refinished to match existing. If new awnings are to be installed, they should follow the guidelines of the KMMS Design Standards and be of a smaller scale such that they do not obscure the character-defining transom windows.

The nonoriginal windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary and/or material evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.

[74] Ibid, 11-13.

[75] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 8.

655 SUTTER STREET (ES-21)

APN: 0297012

Construction Date: 1912

Architect/Builder/Designer: Frederick Herman Meyer

Previous Status: Category A

Previous CHR Status Code: 3D; Category V, Article 11, Kearny-Market-Mason-Sutter Conservation District

Date of Past Surveys/Evaluations: 1976; 1978; 1990

AAU Acquisition Date: 1999

Current CHR Status Code: 3CS

Applicable Criteria: 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

Designed by Frederick Herman Meyer, 655 Sutter Street was constructed in 1912, originally as apartments. By 1933, according to city directory research, the building had been at least partially converted to commercial/office space. With a T-shaped building plan, the six-story property is set flush to the sidewalk on a rectangular, sloped lot, with its primary elevation facing Sutter Street. 655 Sutter Street exhibits a symmetrical, Renaissance Revival design, with a relatively spare ornamental program on the ground story, finer detailing through the middle stories, and elaborate ornamentation on the top story. The building is sheathed in brick and smooth stucco and capped with a flat roof, terminating in an ornamental cornice accented with modillions and dentils.

The primary elevation's tall first story features a centered, recessed main entry with storefronts on either side. The main entry is composed of paired aluminum doors with side lights and a large transom window, which appears to date to 1962. The walls of the recessed entry are sheathed in marble and framed on the exterior by thin aluminum surrounds. Each storefront features large windows and a recessed entrance. The eastern storefront was extensively altered in 1986 through the installation of the multi-light fixed window, and more recently with the addition of a black-tiled bench and lighting fixture.

Figure 174. 655 Sutter Street.

Among the storefronts, the westernmost segment appears to retain the highest degree of integrity to the circa 1933 conversion (and the character-defining features of this storefront are considered to have gained significance in their own right). The western storefront exhibits centered glass entry doors, with single-pane glazing and signage above. Minimal ornamentation on the first story includes scrolled brackets adjacent to the storefronts. A simple cornice line divides the first story from the upper stories.

Fenestration patterns are symmetrical, with paired and single wood-framed windows spanning each story of the façade. The nuances of the building’s vertical design composition include decorative spandrel panels dividing fenestration through the middle stories, and arched window openings on the fifth story. A molded course spans the façade below the top story, providing an ornamental accent and dividing line between the lower and upper stories. Windows on the top story are separated by ornamental pilasters. A metal fire escape is centered on the building.

Figure 175. 655 Sutter Street, first story of the primary elevation.

Figure 176. 655 Sutter Street, close up of the main entry on the primary elevation.

Figure 177. 655 Sutter Street, northern perspective of the south and west elevations.

Secondary elevations are visible from the alley behind the structure. The rear section of the T-shape is constructed of brick with recessed windows. The flat roof is capped in a shallow copping at the eave line. The window types utilized include single-hung windows in a variety of configurations. A metal fire escape is located on the southern elevation.

The main entry leads to a small lobby, which features terrazzo floor tiles, mirrored walls, elevators, and staircase. The original design appears to have included a lobby; since its original construction, however, the lobby has been configured several times, to include ground-floor commercial spaces. The double-loaded corridor spatial arrangement of the upper stories appears to be intact, however, the original materials appear to have been largely replaced with drywall, metal doors, and carpeting.

Figure 178. Interior stair of subject property.

Figure 179. Interior lobby of subject property.

SITE HISTORY

Frederick Herman Meyer designed the apartment building at 655 Sutter Street for H.O. Trowbridge and W.F. Perkins. According to the *San Francisco Chronicle* article, published 23 October 1913:

> The suits of apartments are arranged in two and three rooms, each having a private hall and bathroom. Wall beds will be placed in all apartments. The bathrooms are to have tiled floors and tiled wainscot, with recess tubs. Dining-rooms will be wainscoted and all the walls covered with selected papers. A spacious lobby will lend character to the house, and its finish, to be in keeping with this idea, will be in tiled floor, marble wainscots and a ceiling decorated with ornamental plaster.[76]

Meyer (1876-1961), a San Francisco native, had no formal training when he joined the architecture firm of Campbell and Pettus in 1896.[77] Two years later, he was hired by the firm of Samuel Newsom and became a partner. By 1902, Meyer had partnered with Smith O'Brien before opening his own office in 1908. Meyer was later appointed to design a plan for the construction of the Civic Center with John Galen Howard and John Reid, Jr.; the three would also collaborate on the Auditorium for the 1915 Panama-Pacific International Exposition (now named the Bill Graham Auditorium). Along with the Exposition Auditorium, Meyer designed several notable buildings throughout the city including, 2480 Broadway (Pacific Heights residence, 1902), 116 New Montgomery (Rialto Building, 1906), 380 Eddy Street (Cadillac Hotel, 1906), 785 Market Street (Humboldt Bank Building, 1908), and 2375 Vallejo (residence, 1910).[78]

655 Sutter was completed in 1913 and would have numerous owners and tenants over the following decades. As of 1946, the property was owned by Dr. Francis B. Quinn. By 1955, Quinn had converted the apartment building into an office building, primarily oriented towards medical offices. Quinn renovated the entrance and lobby in 1962; by 1963, ownership transferred to Neil Thompson. Subsequent owners included Anthony Martino and Gilmer Anselmo, T. Knight, Sutter Medical, and Draper Financial Corporation. A number of tenants occupied spaces within the building, including the American Institute of Wine and Food, Paralegal Training and Resource Center, and an unknown bar that altered the eastern ground-level storefront and interior in 1986.

Since AAU took ownership of the building in 1999, AAU changed the use of the property from office to residential and completed multiple alterations including installation of a box sign and new lighting, and materials along the eastern ground-level storefront.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

---

[76] "Brick Apartments Near Completion," *San Francisco Chronicle* 23 October 1913.

[77] David Parry, "Fredick H. Meyer, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2002.

[78] Ibid.

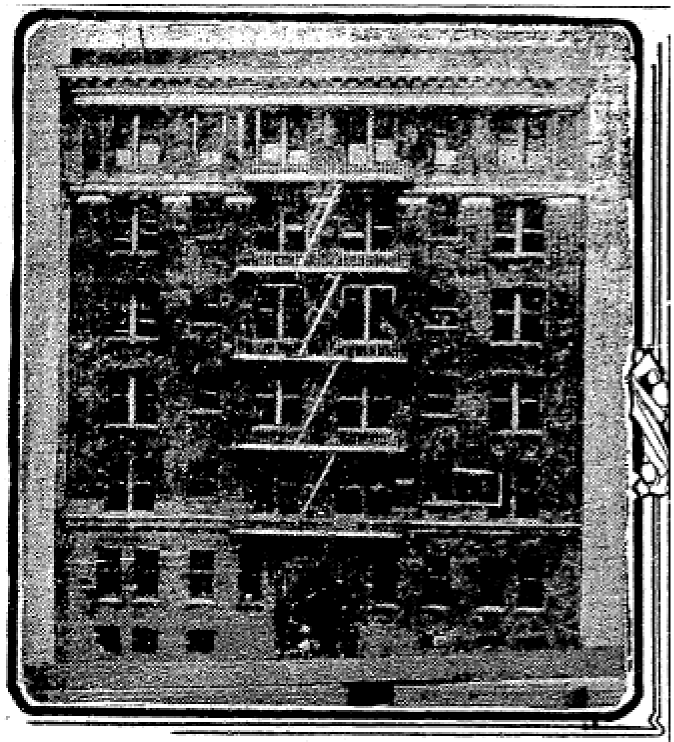


Figure 180. 1913 photo of 655 Sutter Street. (Source: *San Francisco Chronicle* 1913)

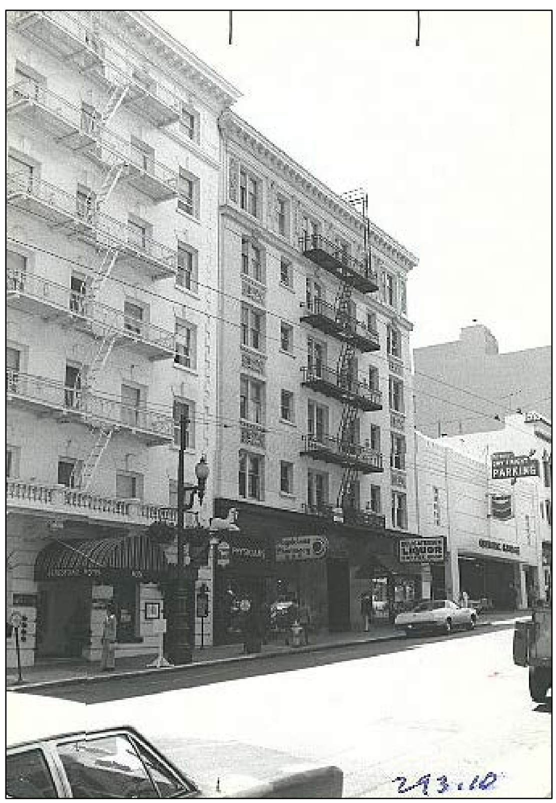


Figure 181. 1976 photo of 655 Sutter Street. (Source: San Francisco Heritage)

Figure 182. 1999 photo of 655 Sutter Street. (Source: Academy of Art University)

Figure 183. 1938 Aerial Photograph, 655 Sutter Street. (Source: Environmental Data Resources)

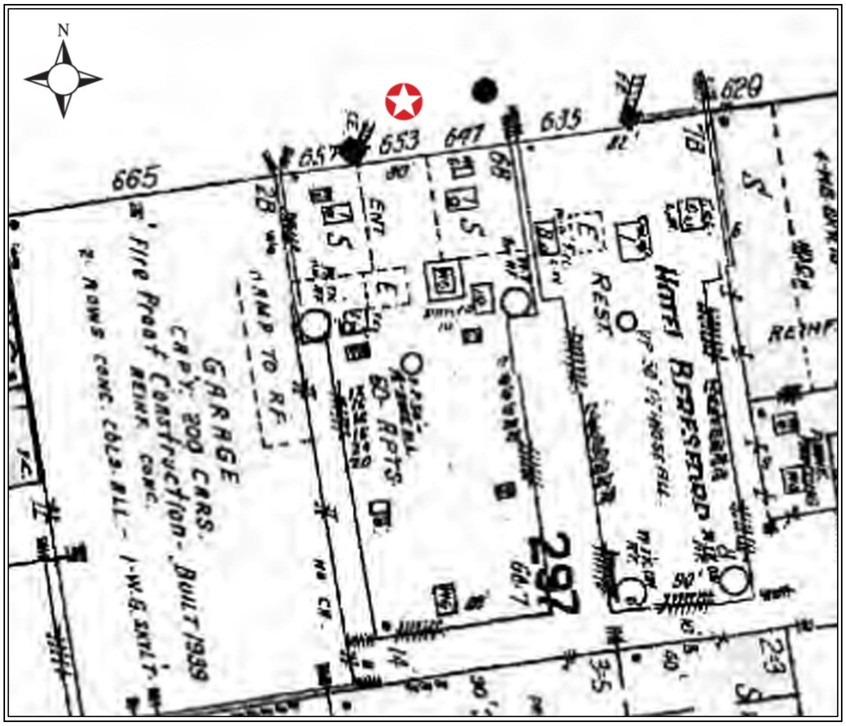


Figure 184. 1948 Sanborn Fire Insurance Map, 655 Sutter Street. (Source: Environmental Data Resources, 2015)

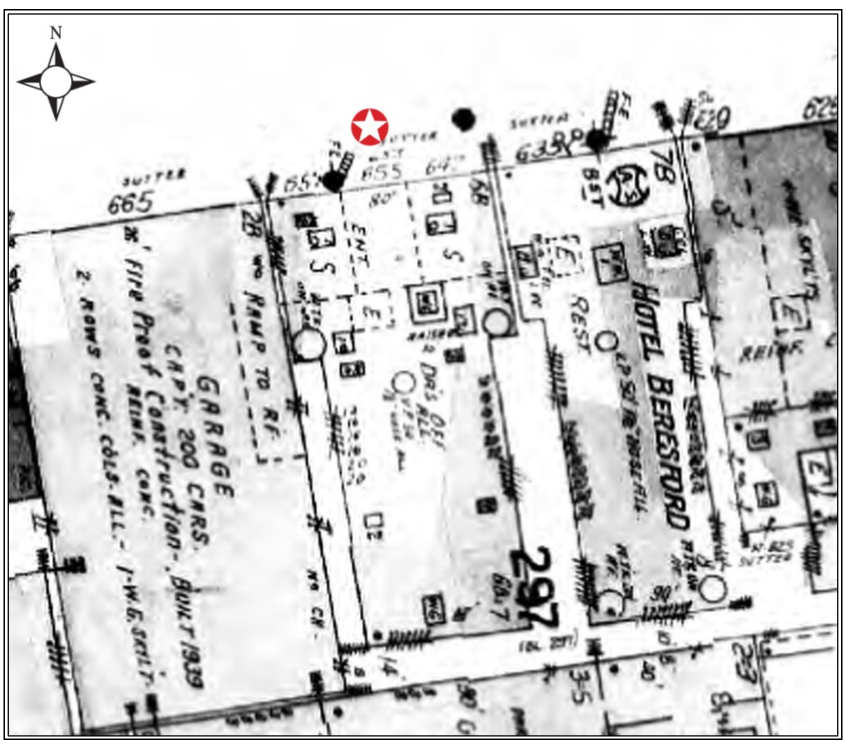


Figure 185. 1974 Sanborn Fire Insurance Map, 655 Sutter Street. (Source: Environmental Data Resources)

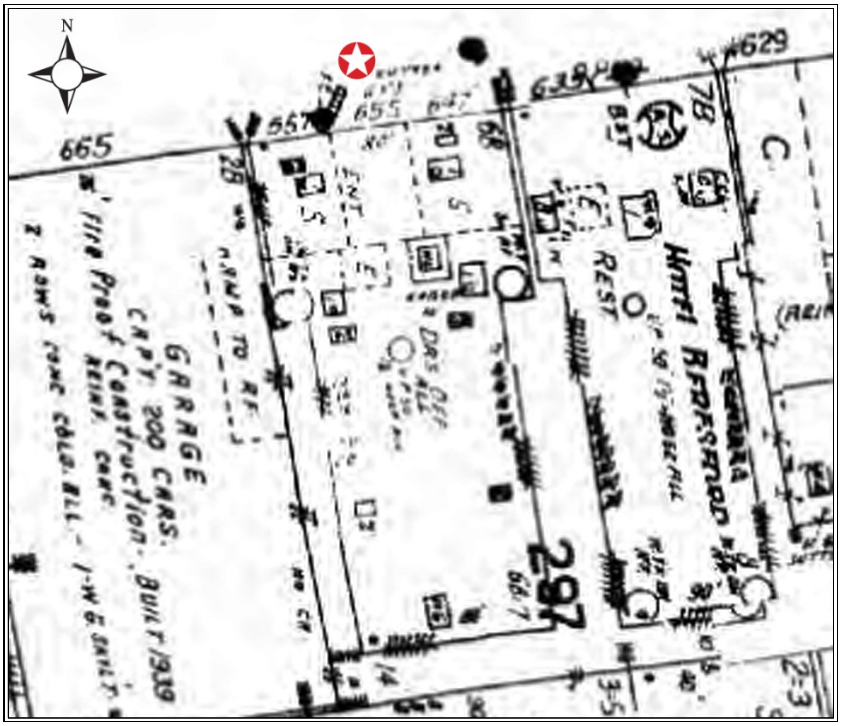


Figure 186. 1988 Sanborn Fire Insurance Map, 655 Sutter Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 655 SUTTER STREET / APN: 0297012

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Mar. 20, 1913 (Apr. 19, 1913)	48304	Perkins + Trowbridge	Frederick H. Meyer	$5,700	Excavate for concrete footing and concrete walks. Footings for a six (6) story Class "C" building, apartment house.
Apr. 10, 1913 (Apr. 14, 1913)	48705	Perkins + Trowbridge	Frederick H. Meyer	$80,000	Construction permit for six a (6) story brick building measuring 60'-9" by 137'-6"
May 2, 1946 (May 9, 1946)	88496	Dr. Francis B. Quinn		$5,000	Shifting partitions within existing apartments to convert the space into offices for physicians.
May 17, 1946 (June 13, 1946)	88861 (85301)	Francis B. Quinn	J. Lloyd Conrich	$8,000	Install new elevator and shaft and lower raised section of lobby floor in front of elevators as per plans heron with.
Aug. 15, 1955 (Nov. 3, 1955)	178175 (111178)	Quinn Properties Co.	Bolton White + Jack Hermann	$800	Alter office layout as-per plans.
July 25, 1957	200491 (179866)	Quinn Properties Co.	Bolton White + Jack Hermann	$2,000	Alterations to offices on 6th floor as per plans.
Dec. 18, 1957 (Dec. 20, 1957)	205569 (604218)	Dr. Quinn		$800	Build office partitions, per attached plans. 2x4 studs 5/8" Bestwall. Trim existing windows.
Oct. 7, 1958	215804	Dr. Quinn		$1,000	To move 2 partitions to new location and move 4 doors. Cover new partitions with sheetrock & patch plaster. Change lights to center of rooms & move switches.
Feb. 14, 1962 (Mar. 2, 1962)	261197 (234103)	655 Sutter Street Medical Building	Hertzka & Knowles	$9,500	Remove and replace lobby entrance doors. Close off two stairways with metal studs and 2 layers of sheetrock. Install new resilient floor covering, suspended ceiling, and new lighting in elevator lobby, and acoustical tile on existing ceiling in front lobby area.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 4, 1962	264716 (256788)	Dr. Francis B. Quinn		$1,850	Replace casings on doors and add 1/8" hardboard on rest room and closet doors in hallway of floors 2 through 6.
June 6, 1962 (June 13, 1962)	266663 (238367)	Dr. Francis B. Quinn		$395	Sheetrock panel on floors 2 through 6. Partition 6"x9" in office #100, steel studs and 5/8" sheetrock to be used on bath side.
July 5, 1963 (July 15, 1963)	284967 (254404)	Neil Thompson		$3,000	Remove approximately 20 L.F. (non-bearing) 2x4 lath and plaster partitions, new doorways as shown. Apply new floor covering and paint.
July 6, 1965 (July 26, 1965)	317183 (283526)	Anthony Martino & Gilmer Anselmo		$325	Install cabinet, build three partitions sheetrock on 2 by 4s.
Oct. 13, 1967 (Oct. 18, 1967)	(312756)	T. Knight		$1,000	Remove partitions in basement, and paint; new ceilings and flooring.
Nov. 21, 1967 (Dec. 6, 1967)	350764 (314610)	T. Knight		$4,500	Change partitions, add new electric service.
May 10, 1968	356670 (319768)	T. Knight		$1,850	New acoustic ceilings for rooms #102, 108, and 110. New partitioning, repaint. New flooring, cabinets, and new interior doors.
June 25, 1968 (July 2, 1968)	(321637)	T. Knight		$800	Remove non-bearing partition and close wall. New acoustic ceilings.
July 9, 1969 (July 14, 1969)	372115 (334011)	Sutter Medical, A Limited Partnership		$3,000	Removal and replacement of non-structural partitions in Suite #308.
July 2, 1969 (July 28, 1969)	372508 (334422)	Sutter Medical, A Limited Partnership		$8,000	Removal of several existing partitions. Replace partitions. Install acoustical ceiling, carpeting, and toilet.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 4, 1971	397710 (357112)	Draper Financial Corporation		$5,000	Demolition of non-bearing wood and plaster partitions. Brick-in existing windows. Install mechanical ventilation. Repair floors. San blast existing brick walls. Build handrails. Install lighting fixtures; painting.
Oct. 20, 1971 (Nov. 9, 1971)	402732 (361130)	Draper Financial Corporation		$3,000	Remove all non-bearing wood stud with plaster walls. Remove ceiling – replace with "T" Bar acoustic panel ceiling and recessed lighting fixtures. Re-finish floor
Dec. 7, 1971 (Dec. 17, 1971)	404356 (63004)	Draper Financial Corporation		$883	Addition to existing fire-escape in West Light-Court elevation of building.
June 7, 1972 (June 16, 1972)	410163 (367262)	Draper Financial Corporation		$15,000	Demolition of non-bearing wood and plaster partitions in basement. Build new partitions of wood and gypsum board. Build glass partition; new toilet room. Install new ceiling in basement and electrical equipment rooms.
Nov. 10, 1972	415740 (371595)	Draper Financial Corporation		$2,200	Construct concrete ramps in place of existing steps. Construct concrete loading dock.
Apr. 12, 1973	420196 (357866)	Draper Financial Corporation		$800	Demolition of non-bearing wood and plaster partitions on 2nd floor. Remove electrical and plumbing fixtures. Remove ceiling system.
June 14, 1973 (July 17, 1973)	423257 (379177)	Draper Financial Corporation	Whisler-Patri	$75,000	Remove non-bearing partitions. Install new partitions, doors, lighting, mechanical, and exterior metal stair.
May 22, 1975 (Oct. 14, 1975)	447031 (404280)	DFC International (lessee)	Paul Johansson & Associates	$3,000	Demolition of non-bearing wood and plaster partitions as indicated on attached plans.
Oct. 6, 1976 (Jan. 5, 1977)	465491 (418166)	Bishop + Bishop		$13,000	Close in existing windows with brick (east and west light courts).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 21, 1976 (Jan. 5, 1977)	466039 (418167)	Draper Wines Retail Store [lessee]	Paul Johansson	$5,000	Remodel 1st floor for retail store.
Aug. 10, 1977 (Aug. 30, 1977)	7708310 (426478)	Bishop + Bishop	Paul Johansson	$20,000	Demolition of store. Construct new store front, stair and interior finishes.
Oct. 30, 1978	7810011 (441774)	DFC International		$12,000	Reinforce existing parapet by supporting to roof structure with angle iron braces.
July 9, 1979	7906913 (450557)	Richland Properties		$9,650	Closing the door between liquor store and main lobby. Paint, wall paper, carpet, and install ceiling acoustic tiles. Repair a wall and a door between the main lobby and stairway.
Nov. 1, 1979 (Nov. 13, 1979)	7911007 (454656)	Richland Properties		$3,500	Construct non-bearing stud wall partitions as shown on attached plans.
Feb. 11, 1980	8001194 (457682)	Professional Nurses Bureau (lessee)		$8,000	(2) Partition office and plaster wall interior. (3) Doors to be refitted. (1) Paint wall paper. Repaint existing acoustical ceiling (3rd floor).
Oct. 27, 1980	8009456 (465429)	Paralegal Training and Resource Center Inc. (lessee)		$8,000	5/8" thick wall made of wallboard and metal studs to be constructed. This wall to have two doors and run approximately 18 ft.
Jan. 11, 1984 (Feb. 14, 1984)	8400423 (511389) ?	Merrill Jen	Merrill Jen	$4,700	Non-structural partitions in existing office.
Jan. 13, 1984 (Feb. 6, 1984)	8400563 (511077)	American Institute of Wine and Food (lessee)		$21,350	Alterations to 5,000 sq. ft. of office space on 4th floor. Remove non-bearing partitions, add steel stud walls. Drop acoustical ceiling.
Feb. 14, 1984	8401630 (512329)	Merrill Jen	Merrill Jen	$8,500	Interior partitions for 6th floor office (non-structural).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 30, 1984 (Mar. 13, 1985)	8411647 (528397)			$7,100	Repair damaged sheetrock, replace interior doors and hardware. Replace 3 doors. Install cabinets.
Aug. 16, 1985	S.F. Property Info Permit: 8508906			$3,000	Installation of hood, duct and blower.
Sept. 9, 1985 (Nov. 25, 1985)	8509859 (540095)	Mel Santiago	Flannery, Book & Meterparel, Inc.	$70,000	Alter present vacant retail store for new restaurant. Add restrooms and kitchen.
Aug. 15, 1985 (Dec. 10, 1985)	8508906 (540813)	Carmelo Santiago		$3,000	Installation of a 14' long hood, duct & broiler.
Feb. 26, 1986 (June 23, 1986)	8602202 (550033)	Mel Santiago	Flannery, Book & Meterparel, Inc.	$45,000	Add corridor partitions, add restrooms, alter storefront, alter stair, add door to ante room at basement, close door to ante room at basement. Add partition on 1st floor tenant space.
Apr. 25, 1986	8604820	Mel Santiago	Flannery, Book & Meterparel, Inc.	$14,500	Add bar & interior decorations for dining rooms.
Oct. 10, 1996 (June 19, 1997)	9619566 (824416)	Ben Lour Corporation		$160,000	Earthquake hazard mitigation. Comply with UMB ordinances.
Jan. 26, 1999	9901589 (870009)	Elisa & Scott Stephens	Dale Meyer Associates	$11,700	Two (2) ADA toilets constructed (2nd floor) access only.
Jan. 27, 1999	9901675 (8701250)	Elisa & Scott Stephens	Dale Meyer Associates	$75,000	Minor office remodel, upgrade six (6) bathrooms.
Feb. 26, 1999 (Mar. 5, 1999)	9903715 (872937)	Elisa & Scott Stephens	Dale Meyer Associates	$75,000	Revision to Permit #9901675 per corrections notice for bathroom & shower.
June 30, 1999 (Aug. 12, 1999)	9913156 S (886137)	Elisa & Scott Stephens	MARS Architecture	$250,000	Change of use from office to group housing.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 28, 1999 (Oct 30, 1999)	9918043 (893884)	Elisa and Scott Stephens	Dale Meyer Associates	$15,600	Revision to Application #9913156 device location only.
Sept. 7, 1999 (Oct. 30, 1999)	9918635 (893888)	Elisa and Scott Stephens		$10,000	Provide sprinklers.
Oct. 21. 1999 (Mar. 2, 2000)	9922424 (903528)	AAU		$60,000	Fire alarm installation.
Jan. 20, 2000 (Jan. 24, 2000)	20000122744 (900131)	AAU	MARS Architecture	$1	Revision to PA #9913156. Clarify occupancy classification.
Aug. 16, 2000	200008167973 (91885)	AAU	MARS Architecture	$10,000	Provide standpipe per plan, back stairs.
Sept. 10, 2002 (Sept. 20, 2002)	200209106075 (977122)	AAU	SOHA (Engineers)	$262,000	Provide underpinning per plan (no increase in office space).
Dec. 19, 2002 (Jan. 29, 2003)	200212193854 (986037)	AAU	SOHA (Engineers)	$22,000	To modify existing approved underpinning Application #200209106075 to meet needs determined during construction.
July 7, 2009	200907011803 (1189219)	Elisa Stephens		$100,000	Demo int. drywall and exist restrooms to bring up to ADA. Add 1 ADA restroom Demo/new walls of kitchen to clear path. Change use from rest to school cafeteria
Sept. 10, 2002	S.F. Property Info Permit: 200209106075			$262,000	Provide underpinning per plans.
Dec. 19, 2002	S.F. Property Info Permit: 200212193854			$22,000	Modify existing approved underpinning Application #200209106075 to meet needs determined during construction.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 1, 2009	S.F. Property Info Permit: 200907011803			$100,000	Demo interior drywall and existing restrooms to bring up to ADA standards. Add one ADA restroom-ADA compliant (women's) demo and new walls at kitchen to clear path. Change use to school cafeteria.
Sept. 10, 2009 (Sept. 18, 2009)	200909106573 (1194869)	Elisa Stephens		$26,578	Revision to PA#2009-0701-1803- add exiting diagram and OCC calculations to change cafeteria's OCC loads, use from B to A-2, sheet A-8.
Oct. 14, 2009	200910148919 (1196877)	AAU		$10,000	Extending existing fire sprinkler system to renovated restaurant area - connect to existing riser 1st floor. Total new heads 43.
Jan. 25, 2010	S.F. Property Info Permit: 201001255231 (*permit filed but never issued)			$5,000	Erect an electric illuminated single faced wall sign.
Oct. 26, 2010	S.F. Property Info Permit: 201010263778			$15,000	Respond to NOV #20105228 to provide light and ventilation to ground floor activity room.
Oct. 8, 2009(Oct. 29, 2009)	200910088599 (1198092)	Stephens Trust		$4,400	Add 3 smoke detectors, 2 duct detectors, 3 horn/strobes, 2 strobes and 1 monitoring module as tenant improvement.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

655 Sutter Street was evaluated for eligibility for the California Register of Historical Resources (CRHR). In addition to being a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District, 655 Sutter Street appears individually eligible for the CRHR under Criterion 1, as an exemplification of multi-family residential development in downtown San Francisco in the post-1906 earthquake reconstruction period. The property also qualifies under CRHR Criterion 3, as an excellent example of Renaissance Revival-influenced architecture in downtown San Francisco.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

655 Sutter Street retains integrity and remains CRHR eligible. The period of significance is 1912, corresponding with the construction date of the property.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Mid-rise height and rectilinear, T-shaped building plan
- Site: set flush to sidewalk
- Tripartite design composition unornamented ground floor, finer detailing through middle floors, and elaborated ornamentation on top floor
- Flat roof with no overhanging eaves
- Brick and stucco exterior wall surfaces
- Detailed ornamental cornice with modillions and dentils
- Detailed spandrel panels between paired, mid-floor windows
- Ornamental pilasters on top story
- Decorative panels and scrolled brackets on ground level
- Wood-frame single-hung windows
- Arched brick window openings on 5th floor
- Fire escapes (north and south elevations)

Interior

- Spatial arrangement: double-loaded corridor
- Interior stairway and railings

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Storefronts added to ground level by 1933 (historic photographs, city directories, and Sanborns)
- Central entryway doors replaced with current aluminum doors in 1962 (261197)
- Remodel of first-floor unidentified storefront in 1976 (Permit 466039)
- Demolition and reconstruction of unidentified storefront in 1977 (Permit 7708310)
- Conversion of eastern commercial retail space to a restaurant in 1985, resulting in the alteration of the storefront (Permit 8509859)

Post-AAU Alterations:

- Security cameras added
- Signage added above the main entry in 2010 (Permit 201001255231 [*permit filed but never issued])
- Alteration of eastern storefront through application of black tiles and paint and installation of wall-mounted lights post 1999 (historic photographs and visual observation)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- In-filled window openings with brick on ground-level (rear south elevation) in 1976 (Permit 465491)
- Metal stairs added to east elevation in 1973 (Permit 423257)
- Duct work added on walls of south and east elevation (AAU, Memo to SWCA, 2/2/2016)
- Lights added along rear elevations (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security cameras added
- Lights added along rear elevations (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

Historic photographs of the property indicate that development of commercial spaces on the ground level of this originally residential property had taken place by 1933; this resulted in the extensive alteration of the lobby, which appears to have extended further to the east and west. The lobby was again remodeled in 1962 through the addition of terrazzo floor tiles, mirrored walls, and modern elevators. Although the spatial configuration of the upper floors appears largely intact, the original materials appear to have been largely replaced with drywall, metal doors, and carpeting. In addition, fire alarm systems and sprinklers were installed by AAU in 1999 (Permit 9918635) and 2000 (Permit 9922424).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

655 SUTTER STREET (ES-21)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Signage	2010	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Security Camera	Post-1999	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
SECONDARY ELEVATIONS Known/Visible Exterior Alterations												
Security Camera	Post-1999	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Signage: The project complies with Rehabilitation Standard No. 2. The illuminated wall sign that was installed over the primary entrance is generally compatible in scale and appearance, and does not obscure character-defining features.

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Signage: The project complies with Rehabilitation Standard No. 3. The illuminated wall sign is clearly modern and does not result in a false sense of historical development.

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Signage: The project complies with Rehabilitation Standard No. 5. The installation of the illuminated wall sign resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Signage: The project complies with Rehabilitation Standard No. 9. The illuminated wall sign is generally compatible in scale and appearance, does not obscure character-defining features, and is clearly differentiated from the features that characterize the building.

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Signage: The project complies with Rehabilitation Standard No. 10. The awning covers and framing they sheath could be removed at a future date with no impairment to the building.

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

ARTICLE 11 ANALYSIS

In considering the sign's compliance with applicable Article 11 guidelines, the sign is located in an area that does not obscure character-defining features and attached in a manner that should allow for its removal without adversely impacting the exterior of the building.

Although the sign generally complies with the SOIS, it includes elements that are not ordinarily permitted under Article 11. Specifically, the sign is an internally illuminated box sign with a plastic lens, a sign type that is not permitted in Article 11 Conservation Districts.[79] Further, the box sign is supplied electrical power via conduit that is directly attached to the decorative door surround and the face of the building, another design element that is not permitted for new signs.[80]

The eastern, ground-level storefront was changed by AAU through the application of black tile, black paint, and installation wall-mounted lights after 1999. The storefronts are not considered character defining (they date beyond the period of significance and have not acquired significance in their own right). Added by 1933, the eastern storefront was further altered in 1985 by a previous tenant, resulting in the current window and entryway configuration. Although the changes completed by AAU involved non-character-defining elements (and therefore are outside the ordinary purview of the SOIS), Article 11 design guidelines for the Kearny-Market-Mason-Sutter (KMMS) Conservation District would still apply. Specifically, Article 11, Appendix E, Section 7 identifies certain general materials and colors to be used for contributing properties, including brick, stone, and concrete (simulated to look like terra cotta or stone), and traditional light-hued colors.

RECOMMENDATIONS

No changes are required to bring the box sign in to compliance with the SOIS. A project modification that would bring the sign into compliance with Article 11 guidelines includes removal of the sign using the least invasive means possible, repair/refinishing of the exterior wall surface as needed, to match existing, and installation of a new sign that is indirectly illuminated as specified in KMMS Design Standards.

It is also recommended that the dark storefront colors on the eastern storefront be repainted to lighter hues, in accordance with Article 11 guidelines.

[79] San Francisco Planning Department. *DRAFT Sign Controls, Planning Code Article 6*. General Planning Information, November 2012, 11.

[80] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 3.

680 SUTTER STREET (ES-19)

APN: 0283007 (address spans 680-688 Sutter Street)

Construction Date: 1918

Architect/Builder/Designer (if known): C.A. Meussdorffer

Previous Status: Category A

Previous CHR Status Code: 1D; Category IV, Article 11, Kearny-Market-Mason-Sutter Conservation District

Date of Past Surveys/Evaluations: 1976; 1978; 1991

AAU Acquisition Date: By 1982

Current CHR Status Code: 1D

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

The mid-rise apartment building at 680 Sutter Street was constructed in 1918. The building has an irregular plan with a short, recessed eastern wing and an interior open courtyard on the western elevation. A small open area is located at the rear of the property. Set on a rectangular, sloped lot, flush to the sidewalk, the building's primary elevation fronts Sutter Street.

The distinctive building was constructed in the Swiss Chalet Bungalow style and features reinforced concrete construction with a stucco façade. A prominent front-gabled roof, sheathed in red clay tile, caps the building. Centered under the roof gable is a large escutcheon. On the primary portion of the building, the roof line terminates in wide overhanging eaves accented beneath with ornamental triangular knee braces and exposed decorative rafter ends. The rear portion of the building exhibits a flat roof with no eaves.

The first story on the primary wing features a nonoriginal main entry with an arched transom and an arched window to the left, both accented with decorative keystones. A prominent projecting cornice line separates the ground floor from upper stories. Projecting bays with paired rectangular windows are located above the cornice on the second through fifth stories. As was typical for multifamily properties of this era, a fire escape is prominently positioned on the center of the building's primary elevation. On the recessed eastern bay of the primarily elevation is a large wood door with glass lights and an ornate stone surround providing access to the residential units upstairs. A brick wall separates the entry way from the neighboring parking lot. The entry has been modified with the addition of a security gate and long awning, making the residential entry less visible from the street. Stacked above the residential entry are bay windows with a defining cornice line above and below the sixth story bay window. Windows types visible on this elevation are original wood multi-light casement windows, and nonoriginal vinyl double-hung, fixed windows and aluminum sliders.

Figure 187. 680 Sutter Street.

Figure 188. 680 Sutter Street, close up of the decorative brackets and rafter ends on the primary elevation.

Figure 189. 680 Sutter Street, close up of the main entry on the primary elevation.

Figure 190. 680 Sutter Street, close up of the residential entry on the recessed eastern wing of the primary elevation.

Secondary elevations are visible on the north, east, and west elevations. The east elevation is comprised of two sections. The southern section has a column of the same projecting paired rectangular windows seen on the primary elevation. Adjacent to the projecting windows are two columns of single, rectangular windows, a design element that is replicated on the northern section of the east elevation. A smooth stucco finish on the southern section is present, while on the northern section board-formed concrete is visible underneath the stucco. The north elevation is divided into three bays with horizontal bands separating each story. The west and east bays have pairs of windows while the center bay has a single window. The west elevation is only visible from the street where it extends above the adjoining property. Board-formed concrete is visible as is one small window. Utilized throughout the secondary elevations are vinyl single-hung, wood multi-light casement, and fixed windows used in a variety of configurations.

Figure 191. 680 Sutter Street, western perspective of the southern portion of the eastern elevation.

Figure 192. 680 Sutter Street, northwestern perspective of the northern portion of the eastern elevation.

Figure 193. 680 Sutter Street, southwestern perspective of the northern elevation.

Figure 194. 680 Sutter Street, northeastern perspective of the west and primary (south) elevations.

The residential entry leads to a small lobby featuring decorative pilasters, marble floors, and a vaulted ceiling with decorative molding. A decorative railing and a marble fireplace are also present on the first floor. The building's upper floors have short hallways along an open, central courtyard. Original doors, frames, decorative picture rails, and base moldings are extant through the upper floors. The nonoriginal commercial entry off Sutter Street, leads to a small office space that features a short interior stairway and open space bordered by individual rooms.

Figure 195. Interior lobby of subject property.

Figure 196. Interior decorative railing in small office space.

SITE HISTORY

In 1918, Conrad Alfred Meussdoffer constructed 680 Sutter Street for I. Goodfriend. Although little information was available on I. Goodfriend, he is presumed to be Isidor Goodfriend, the president and manager of the Goodfriend Hotel, located on 245 Powell Street.[81]

A San Francisco native, Meussdoffer began his career at the architectural firm of Salfield & Kohlberg in 1892.[82] Three years later, in 1895, he partnered with Victor de Prosse before opening his own firm two years later in 1897. Early in his career, Meussdoffer designed a number of single-family residences in the Pacific Heights area, including 3016 Clay Street (1897), 3051 Clay Street (1902), 3320 Jackson Street (1906), and a pair of flats at 3353 and 3355 Jackson Street (1906). Meussdoffer later moved towards multi-family residences with some of his designs including 1925 Gough Street (1906), 2145 Franklin Street (1917) and 2100 Jackson (1923) among others.

After 680 Sutter was completed in 1918, the building changed ownership on numerous occasions. Goodfriend owned the building through 1924, at which time it transferred to Ralph McLeran.[83] By 1934, the building again changed hands, when T. Fahrenkrog acquired it and re-sold the same year to the Panama Realty Company.[84] Between 1935 and 1962, available building permits show several names listed under

[81] Crocker Langley San Francisco Directory, 1916.

[82] David Parry, "Conrad Meussdoffer, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2003.

[83] "Big Holdings Change Hands in S.F. Deals," *San Francisco Chronicle*, 12 April 1924.

[84] "Realty Firm Buys Sutter Apartments," *San Francisco Chronicle*, 24 March 1934.

the owners/leasees, including Hale Bros. Realty Company (1935), M. Rabonovitch (1948), Richard King (1960), and Don Faulkner and Associates (1962).

By 1965 the building was owned by Roy Christie, who would retain the building until 1973. Christie is the last known owner prior to the AAU acquisition of the building in 1982.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

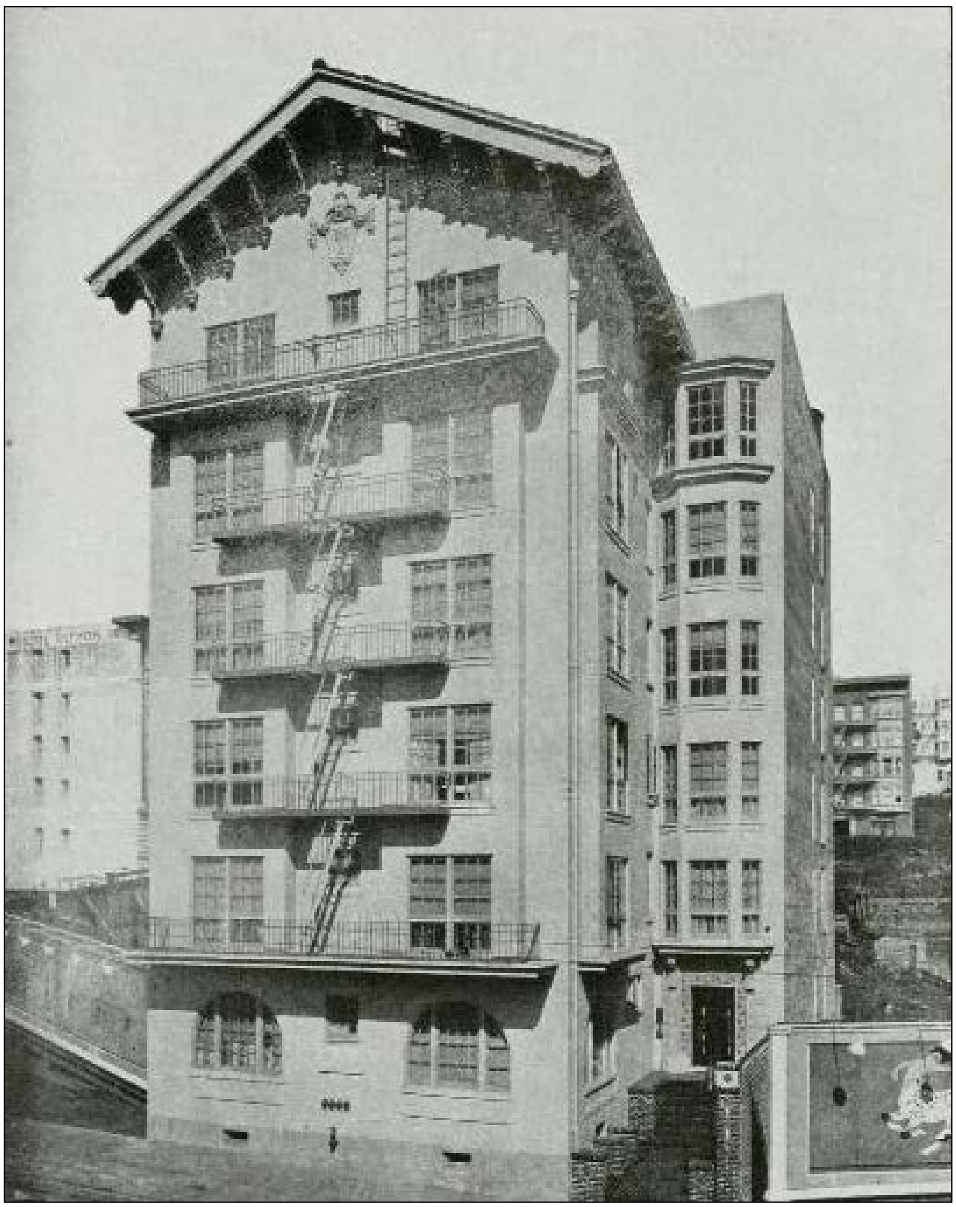


Figure 197. 1919 photo of 680 Sutter Street. This photo shows the original character and brickwork/detailing of the recessed side entrance (lower right of photograph). (Source: *Architect and Engineer*, September 1919)

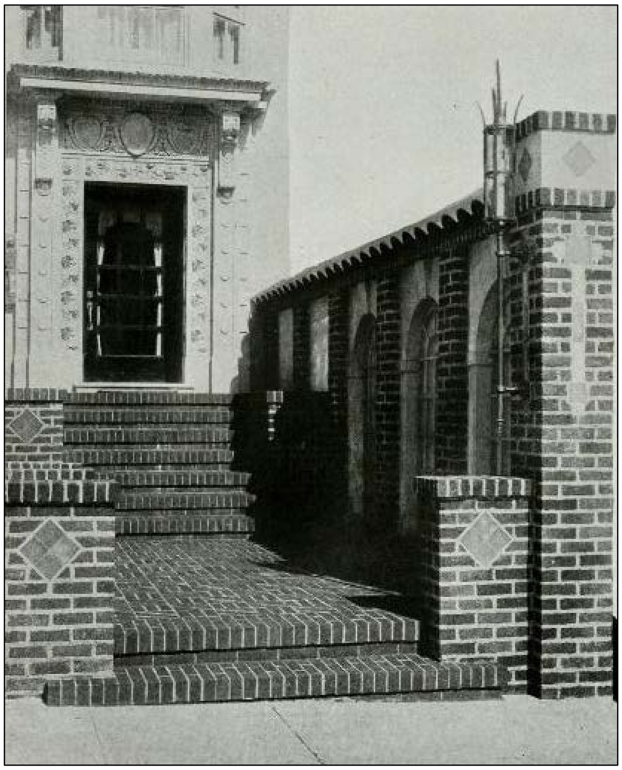


Figure 198. 1919 photo of 680 Sutter Street. (Source: *Architect and Engineer*, September 1919)

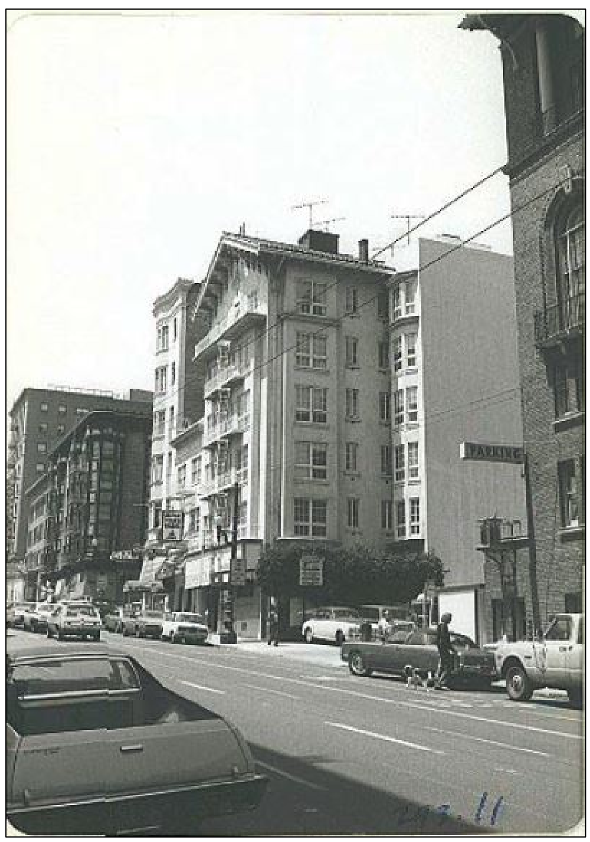


Figure 199. 1976 photo of 680 Sutter Street. (Source: San Francisco Heritage)

Figure 200. 1978 photo of 680 Sutter Street. (Source: San Francisco Heritage)

Figure 201. 1993 photo of 680 Sutter Street. (Source: Academy of Art University)

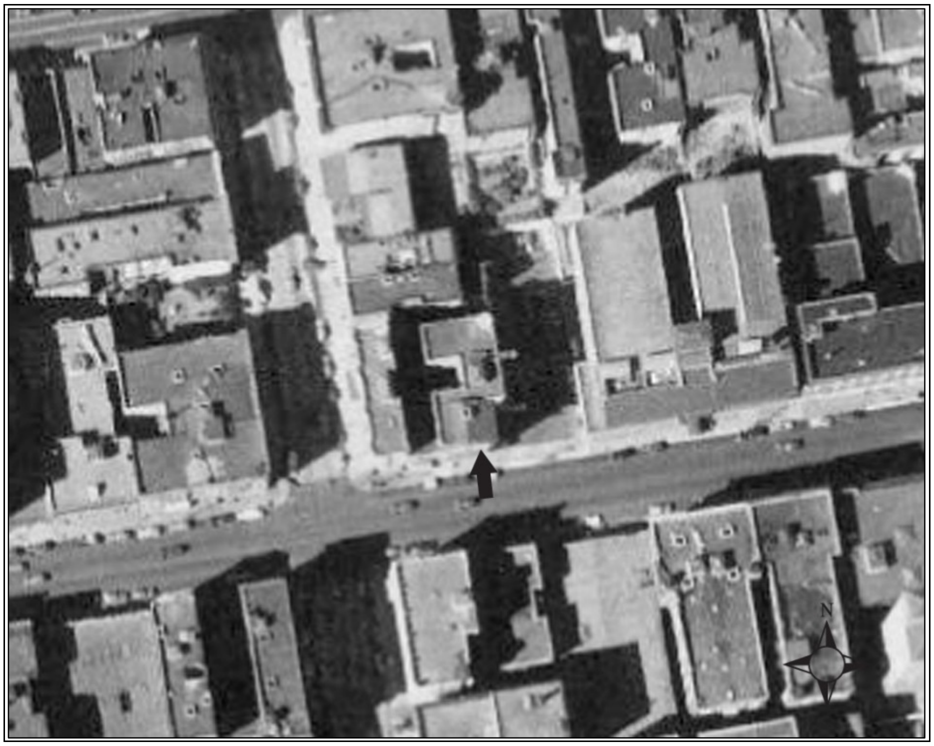


Figure 202. 1938 Aerial Photograph, 680 Sutter Street. (Source: Environmental Data Resources)

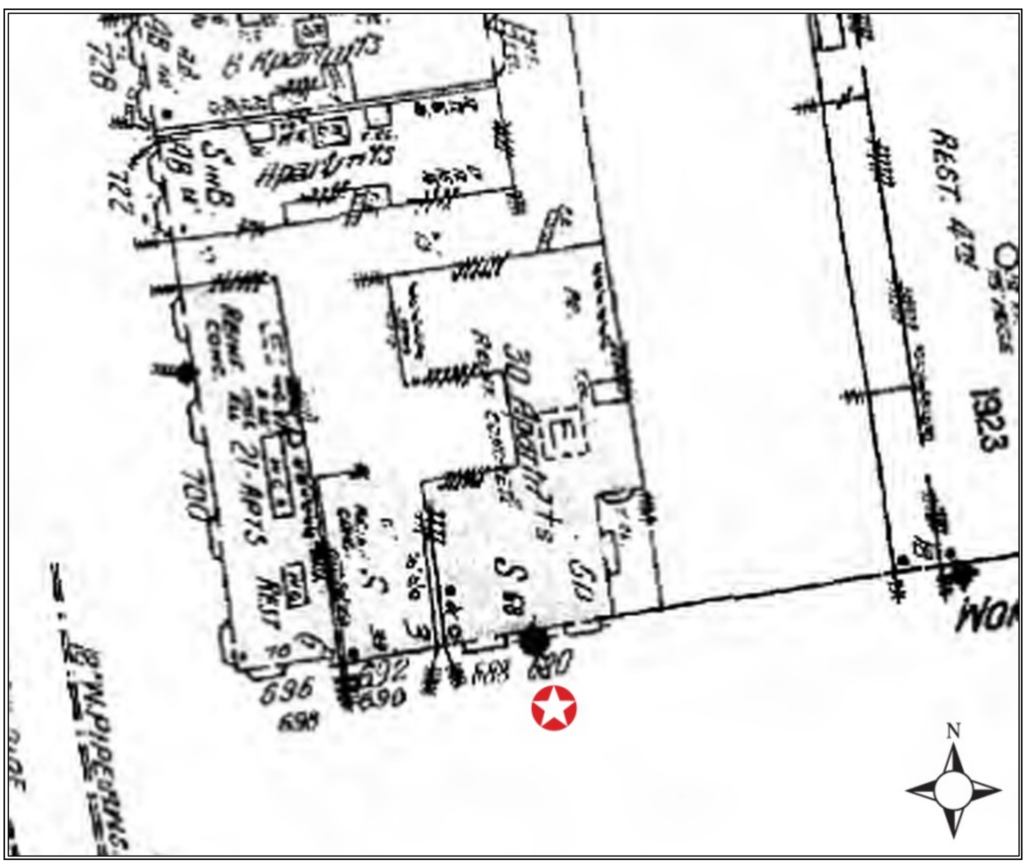


Figure 203. 1948 Sanborn Fire Insurance Map, 680 Sutter Street. (Source: Environmental Data Resources)

Figure 204. 1974 Sanborn Fire Insurance Map, 680 Sutter Street. (Source: Environmental Data Resources)

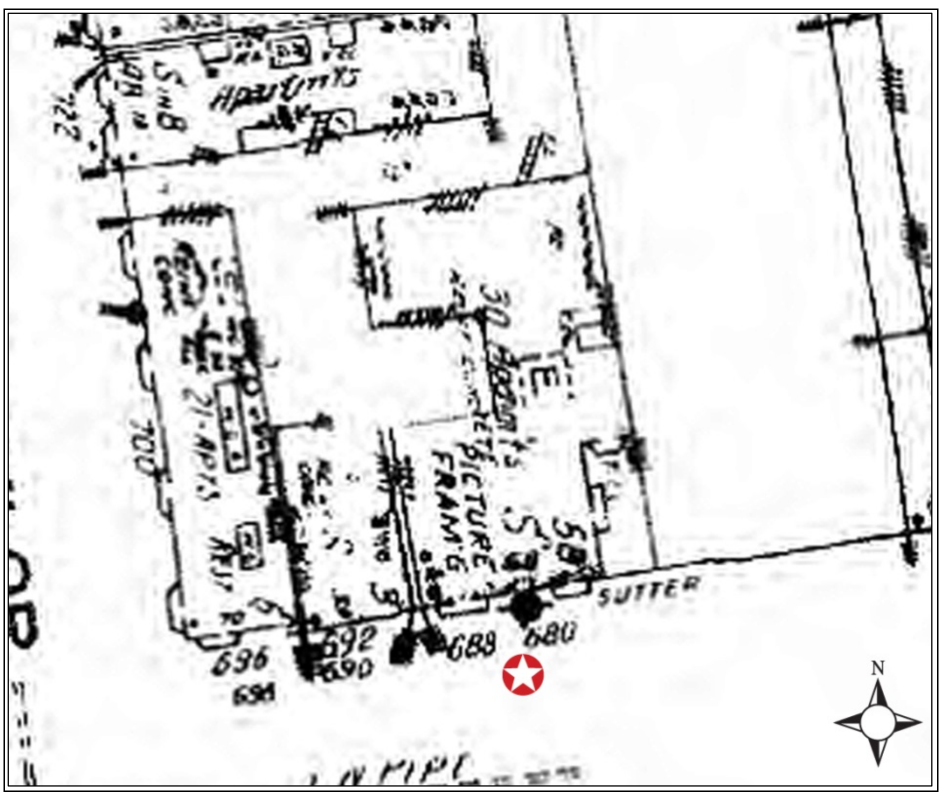


Figure 205. 1988 Sanborn Fire Insurance Map, 680 Sutter Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 680 SUTTER STREET / APN: 0283007

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 1, 1918	81654	I. Goodfriend	Conrad A. Meussdoffer	$75,000	To build a six (6) story one basement building to be occupied as apartments with 29 units. Concrete construction.
June 8, 1918 (June 14, 1918)	82206	Potter Really Bros.		$350	Under pin basement retaining wall - for an average depth of three feet.
Mar. 15, 1934	5849	P. Fahrenkrog		$350	Put in entrance repairs
Mar. 16, 1934	5894			$1,000	Put in stairway from Sutter Street and change interior partitions.
May 3, 1935	12059	Hale Bros. Realty Company		$80	Brace house tank.
Oct. 13, 1948 (Oct. 20, 1948)	111945	M. Rabonovitch		$1,000	Remove no-bearing partition and fix wall of front stone on ground floor.
Sept. 19, 1960	24049	Mr. Richard King		$150	New entrance awning.
Oct. 1, 1962	271797	Don Faulkner		$700	Manufacture and install tubular galvanized frame and canvas for drop type.
Sept. 27, 1962	2715328	Don Faulkner and Associates	H. Grant	$2,000	Remove added partitions. Change glass in windows. Remove false walls and old plumbing. Widen front entrance and replace with aluminum of metal door and glass. Widen and change steps. Wire for display purposes.
July 22, 1965 (Aug. 11, 1965)	317870 (284234)	Roy Christie		$1,800	Install a system of sprinkler piping throughout basement area.
May 10, 1972	398142 (366719)	Roy Christie		$1,000	[appears to be a compliance permit to conform to fire related violations; permit is not legible]

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Feb. 2, 1973 (Feb. 28, 1973)	418154 (374552)	Roy B. Christie		$1,800	33 additional sprinkler heads.
May 25, 1973 (July 6, 1973)	422435	Roy B. Christie, Jr.		$1	To complete work required by checklist to legalize building by checklist.
Mar. 18, 1982 (Apr. 5, 1983)	8302267 (499404)	AAU		$3,800	Erect (electric) sign. Plot plan and elevation indicate exactly the location of sign horizontally and vertically. Shown method of attachment hereon or on separate drawings in duplicate.
Jan. 10, 1986	8600359 (542044)	Jan Furch Academy Arts College		$9,048	Install aluminum windows in existing frames. No structural change or changes in window frames.
Apr. 26, 1996 (May 8, 1996)	9607209 (793465)	AAU		$1,800	To erect single faced electric sign, to be installed flat on wall.
Nov. 20, 1996	9622494 (809243)	Elisa Stephens	Ronald A. Perner	$5,320	Replace concrete deck balcony, fire escape with steel.
Apr. 24, 1997	9707396 (820108)	AAU		$700	Dry standpipe remodel.
June 4, 1997	9710146 (823202)	Elisa Stephens	Ron A. Perner	$1	Revision to Permit #9622494, dated Nov. 20, 1996.
Nov. 15, 2005	200511158167 (1072420)	AAU		$5,000	Minor repair to existing soffit due to dry-rot. All work to match existing. Section of soffit work on south face, and front face of building.
Apr. 8, 2008	200804089059			$5,001	Erect a double faced, projecting, electric sign.
Apr. 8, 2008	200804089060			$10,000	One non illuminated awning/canopy 2’-2” x 5’-2” x 11’-0” projecting.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 3, 2008	200807035941 (1159443)	Elisa & Scott Stephens Trust		$10,000	Work at unit #202 & #302 only. Replace kitchen cabinets, replace sink, and relocate receptacles. Replace ceiling light, replace flooring in kitchens.
Mar. 1, 2010	201003017277			$5,000	Installation of 1 non-illuminated canopy awning. 2’-2” x 5’-2” x 11’-0” wide x 8’-10” to bottom.
Mar. 31, 2010 (June 4, 2010)	201003319387 (1213499)	Elisa Stephens Trust		$100	Removal of one electrical wall sign (backlit).
Mar. 31, 2010	201003319388			$100	Removal of one 1-projecting wall sign.
Apr. 16, 2010					
Sept. 7, 2010	201009070317			$11,000	Work at unit #204 only. Respond to NOV #201052694 for window replacement and kitchen remodel without permit.
Oct. 29, 2010 (Nov. 8, 2010	201010293992 (1225331)	Elisa Stephens Trust (AAU)		$1,000	Add 1 pendant head at top of garbage shaft. Add 2 sidewalls in garbage shaft. One at 2nd floor and one at 4th floor.
Jan. 5, 2012	201201051753			$50,000	Units #400, #402, #500, #506, and #602: Remodel of kitchens in kind. Replace counters, cabinets, sinks and faucets.
Jan. 30, 2012	201201303193			$1	(For planning dept. purposes only) To reclassify building as 2 dwelling units and 26 units as education group housing.
Dec. 10, 2012	201212105826 (1281542)	AAU		$28,481	Re-roof existing mineral cap sheet roof with new SPE roofing system.
Jan. 24, 2013 (Mar. 4, 2013)	201301248690 (1287643)	AAU		$500	Remove projecting signage. (Remove signage on all 3 sides of awning).

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

680 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District (and is therefore an historical resource under CEQA). The property is also a contributing property in the Kearny-Market-Mason-Sutter Street Conservation District (KMMS).

In addition to being listed in the NRHP and contributing to the KMMS, 680 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential development in the Nob Hill neighborhood during the post-1906 earthquake Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences. The property represents a distinctive example of an apartment building in the Nob Hill neighborhood with unique Swiss Chalet Bungalow-style details.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). 680 Sutter Street retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1918 to 1940, with the end date corresponding with end of the historic district's period of significance.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Mid-rise height and irregular plan with short, recessed eastern wing and open courtyard on west elevation
- Site: set flush with the sidewalk
- Articulated storefront and recessed residential entryway to east
- Red-clay clad, front-gable roof with elaborate decorative brackets and exposed rafter ends on primary wing and flat roof with no eaves on rear (north) and east wing
- Short projecting bays on south and east
- Bold projecting cornice defining division between ground and upper stories
- Brick entrance wall; wood and glass entrance with ornate decorative trim
- Concrete construction and smooth stucco sheathing on exterior walls
- Large arched windows accented with decorative keystones
- Divided light, wood-casement windows on north, south, and east elevations
- Fire escape (south and north elevations)

Interior

- Spatial arrangement: short hallways along open central courtyard
- Original doors and frames
- Decorative picture rails and base moldings
- Vaulted lobby ceiling with decorative molding
- Decorative pilasters and marble floor in lobby
- Marble fireplace
- Decorative railing

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Original, western arched window on ground-level was converted into a doorway prior to 1934 (SF Chronicle)
- New entrance awning, 1960 (Permit 24049)
- Ground-level storefront was widened to accommodate the current aluminum door and the upper transom window was replaced in 1962 (Permit 2715328)
- Original ground-floor window painted over (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Projecting wall sign and installation of hardware/brackets added in 1983 (Permit 8302267); wall sign removed in 2010 (but installation hardware/brackets left in place and painted over) (Permit 201003319388)
- Top portion of fire escape and balcony/railing replaced with shorter fire escape platform; balcony/railing spanning the façade removed in 1996/1997 (Permit 9622494, 20 November 1996, and Permit 9710146, 4 June 1997)
- Non-illuminated awning/canopy added, 2'2" x 5'2" x 11'0", 2008 (Permit 200804089006)
- Operable window within the large arched windows on ground-floor replaced with aluminum slider in 1986 (Permit 8600359)

Dates inconclusive or awaiting further data:

- Security gate added on ground floor at residential entryway (AAU, Memo to SWCA, 2/2/2016)

SECONDARY ELEVATIONS

Post-AAU Alterations:

- Operable window within the large arched windows on ground-level replaced with aluminum slider installed in 1986 (Permit 8600359)
- Replacement windows on the interior courtyard/west elevation replaced (vinyl double-hung) (AAU, Memo to SWCA, 2/2/2016)

INTERIOR

Although the first floor has been converted into a retail space since the property's initial construction, the small lobby appears to be largely intact. Changes include the addition of lighting, the replacement of some interior doors, and removal of materials outside of the lobby.

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

680 SUTTER STREET (ES-19)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Fire Escape Platform and Railing (primary elevation, top of building)	1996/1997	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Restore the fire escape's balconette and decorative railing and façade-wide platform at the sixth story
Brackets	2010	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove brackets, repair wall, refinish surfaces to match existing
Awning	2008	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove awning, repair features
Window Replacements	1986	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Replace aluminum windows, replace with historically

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												compatible windows, based on documentary and/or material evidence
SECONDARY ELEVATION Known/Visible Exterior Alterations												
Window Replacements	1986	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	Replace aluminum/vinyl windows, replace with historically compatible windows

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Fire Escape Platform and Balconette/Railing Removal: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Brackets: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Awning: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 2. The original façade-length fire escape platform and railing balanced the vertical design composition of the building. These elements were distinctive, character-defining features for the property.

Brackets: The project does not comply with Rehabilitation Standard No. 2. The brackets are a remnant of a now-removed wall sign that had been installed in 1982 by AAU and removed by 2008. The brackets interrupt the smooth corner and the void between extending window bays. Additionally, the installation of these brackets, into the smooth stucco of the exterior walls, damaged historic fabric.

Awning: The project does not comply with Rehabilitation Standard No. 2. The awning obscures distinctive character-defining elements of the residence that were designed to be seen. These include: (1) the principal recessed entrance, (2) ground-floor windows along the eastern elevation, and (3) the brick wall marking the entrance porch. The awning installation also appears to have damaged the historic stucco surface and material around the main entry.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs of the building indicate that the original windows within the large arched openings on the ground-level were divided lights. The installation of the aluminum windows altered this original pattern, resulting in the removal of distinctive historic materials.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Fire Escape Platform and Balconette/Railing Removal: The project complies with Rehabilitation Standard No. 3.

Brackets: The project complies with Rehabilitation Standard No. 3. Given their size and utilitarian appearance, the brackets do not create a false sense of historical development.

Awning: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the building did not have an awning over the primary entryway during the period of significance (1918-1940). The awning introduces a highly visible element on the façade that is not consistent with the historical appearance of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The nonoriginal aluminum windows introduce an architectural element that is inconsistent with the original design and character of the building.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Fire Escape Platform and Balconette/Railing Removal: N/A

Brackets: N/A

Awning: N/A

Window Replacements: N/A

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 5. The original façade-length fire escape platform and railing balanced the vertical design composition of the building. These elements were distinctive, character-defining features of the property.

Brackets: The project does not comply with Rehabilitation Standard No. 5. The large mounting brackets were installed directly into historic wall finishes and materials. The project is likely to have resulted in damage to distinctive materials that characterize the property.

Awning: The project does not comply with Rehabilitation Standard No. 5. The nonoriginal awnings obscure the distinctive character, configuration, and details of the entrance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The removal of original windows and installation of replacement windows resulted in the loss of distinctive features and materials that characterized the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 6. Deteriorated features were replaced rather than repaired, and the character and appearance of the replacement features do not match those of the original features.

Brackets: Rehabilitation Standard No. 6 is not applicable to this project.

Awning: Rehabilitation Standard No. 6 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were deteriorated and the project replaced rather than repaired them.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Fire Escape Platform and Balconette/Railing Removal: N/A

Brackets: N/A

Awning: N/A

Window Replacements: N/A

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Fire Escape Platform and Balconette/Railing Removal: N/A

Brackets: N/A

Awning: N/A

Window Replacements: N/A

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Fire Escape Platform and Balconette/Railing Removal: The project does not comply with Rehabilitation Standard No. 9. Original features were removed and not replaced in-kind to match the historic features in appearance, size, or proportions.

Brackets: The project does not comply with Rehabilitation Standard No. 9. The brackets interrupt the smooth corner and the void between extending window bays, which contributes to the character of the property. Additionally the installation of these brackets has damaged the historic stucco.

Awning: The project does not comply with Rehabilitation Standard No. 9. The awning obscures the primary entryway, which both contributes to the historic character of the property and are important in its ability to convey its historic significance.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. The project resulted in damage to the original divided-light windows, which were character-defining features of the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Fire Escape Platform and Balconette/Railing Removal: The project complies with Rehabilitation Standard No. 10. Its removal would not permanently impair the essential form and integrity of the historic property.

Brackets: The project complies with Rehabilitation Standard No. 10. Its removal would not permanently impair the essential form and integrity of the historic property.

Awnings: The project complies with Rehabilitation Standard No. 10. Its removal would not permanently impair the essential form and integrity of the historic property.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although installation of the new windows resulted in damage to historic materials, new windows can be installed that replicate the materials and window pane configuration of the original divided-light windows.

ARTICLE 11 ANALYSIS

680 Sutter Street is a Category IV (Contributory) property within the Kearny-Market-Mason-Sutter Conservation District, adopted in 1985 and codified in Article 11, Appendix E, of the San Francisco Planning Code. Both Article 11 and Appendix E describe review standards and requirements for the treatment of properties within Conservation Districts and the Kearny-Market-Mason-Sutter Conservation District. In general, the recommendations and design guidelines for Article 11 properties reflect a district-specific application of the *Secretary's Standards*, to ensure the protection and retention of the district's historic character and significance.[85]

Design Standards for the Kearny-Market-Mason-Sutter Conservation District specify that awnings should not obscure character-defining features.[86] In the case of the subject property, the awnings introduce an architectural feature that obscures the character-defining residential entrance and decorative surround with details that were designed to be seen.

RECOMMENDATIONS

To facilitate compliance with SOIS and applicable Article 11 guidelines, the original appearance of the fire escape's façade-wide platform, fronted by a balconette and decorative railing, should be restored. Additionally, the primary façade awning and brackets should be removed and any damaged materials repaired, patched, and refinished to match existing adjacent historic materials. Non-original vinyl and aluminum windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames. In addition, the original appearance and proportions of the fire escape's façade-wide platform, balconette and decorative railing at the sixth story should be replaced, using documentary evidence.

[85] San Francisco Planning Code, Article 11, Section 1111.6, Standards and Requirements for Review of Applications for Alterations.

[86] San Francisco Planning Department. *DRAFT Design Standards for Signage & Awnings in the Kearny-Mason-Market-Sutter Conservation District*. Historic Preservation Design Standards, June 2009, 7.

817-831 SUTTER STREET (ES-14)

APN: 0299021 (address spans 817-831 Sutter Street)

Construction Date: 1924

Architect/Builder/Designer (if known): Baumann & Jose

Previous Status: Category A

Previous CHR Status Code: 1D

Date of Past Surveys/Evaluations: 1978; 1991

AAU Acquisition Date: 2006

Current CHR Status Code: 1D

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

The mid-rise building at 817-831 Sutter Street was constructed in 1924 as a residential and commercial hotel. The building has a T-shape plan and is set flush to the sidewalk on a rectangular, sloped lot with the primary elevation facing north on Sutter Street. With Spanish Colonial details, the building features a symmetrical design with a stucco façade, and is capped with a flat roof with a short parapet sheathed in red clay tile and topped by pinnacles.

Figure 206. 817-831 Sutter Street.

The primary elevation has a delineated commercial storefront on the first story covered in green and purple panels. The main entry is centered on the elevation and is composed of a nonoriginal, recessed aluminum framed, glass double-door with large sidelights and transom. Above the main entry is a metal canopy with sign that reads “Commodore.” To the west of the main entry is a curved entry with a set of paneled double-doors with a metal security gate, which formerly led to a bar. East of the main entry is a former restaurant space (now vacant) that is delineated by a large fixed window and two single doors; one glass with a transom window and an adjacent metal personnel door.

Above the first floor, projecting window bays on the second through the sixth stories form defined vertical elements on the east and west side of the building. Between the projecting window bays, rectangular windows are symmetrically spaced on the second through the fifth stories, while the sixth story windows are arched. Rounded balconies with decorative entablature sand brackets are located in front of the eastern and western most sixth story windows. A detailed frieze separates the fifth and sixth stories and the decorative parapet features escutcheon on the projecting bays. Vinyl sliding windows have replaced the original windows on the upper stories.

Figure 207. 817-831 Sutter Street, close up of the first story on the primary elevation.

Figure 208. 817-831 Sutter Street, close up of the main entry on the primary elevation.

Figure 209. 817-831 Sutter Street, close up of the entry to the yoga room on the primary elevation.

Figure 210. 817-831 Sutter Street, close up of the entry to the former café and basement on the primary elevation.

Figure 211. 817-831 Sutter Street, close up of the upper story details.

Secondary elevations are visible from a small courtyard on the east and a walkway on the west, both of which are accessed via a personnel door from the basement. The secondary elevations are comprised of horizontal bands of windows comprised of nonoriginal vinyl and aluminum sliders, double-hung, and casement windows.

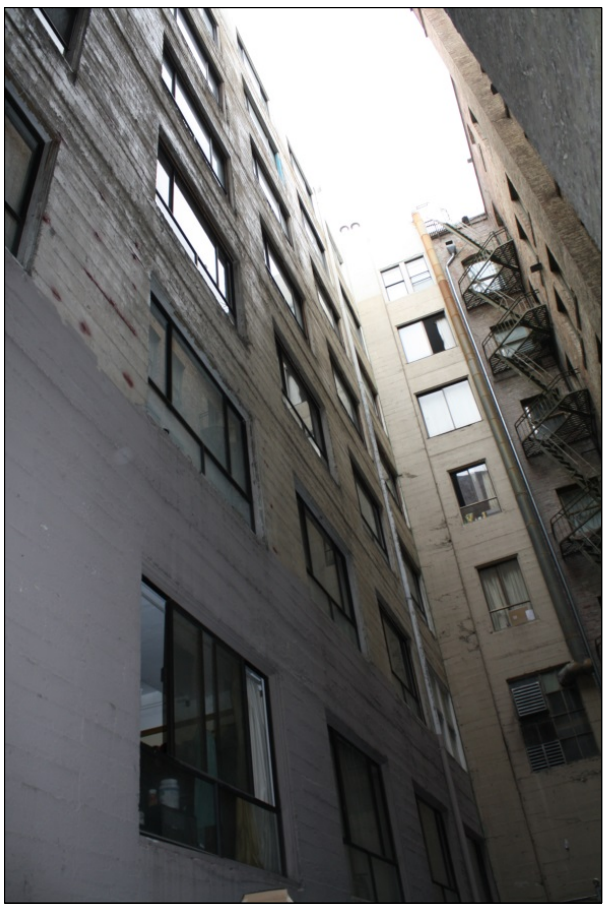


Figure 212. 817-831 Sutter Street, northern perspective of the western elevation.

Figure 213. 817-831 Sutter Street, northeastern perspective of the western elevation.

The main entry leads to a large open lobby, which features decorative molding, columns, and pilasters. When the lobby was reconfigured in 1956, the elevator doors and other interior features were removed, and more recently a glass door leading to a room behind the lobby has been added. A door on the east side of the room provides access to the yoga room, which recently replaced a former bar located in the western, ground-level commercial space. The room is now an open space with modern materials typical of its function. A glass door on the west side of the lobby, also accessed through the glass door on the primary elevation, is a former coffee shop that appears to date to the 1990s or 2000s. The materials, including seating and kitchen equipment, have been left in place although the space remains vacant. Marble stairs from the lobby lead to the residential floors with double-loaded corridors. Original rounded ceilings and wainscoting are extant throughout the upper stories.

Figure 214. Interior lobby of subject property.

Figure 215. Interior lobby of the subject property.

Figure 216. Interior yoga room of the subject property.

Figure 217. Interior of the former cafe of the subject property.

SITE HISTORY

Designed by H.C. Baumann and Edward Jose, the hotel at 817-831 Sutter Street was built by owner James Welsh originally as a bachelor hotel.[87] According to the *San Francisco Chronicle* article, published 1 January 1924:

> The six-story and basement building, comprising 116 rooms, each with private bath, occupies ground 82x110 feet, which was purchased through [Louis T.] Samuels by James A. Welsh a few months back. Stores will occupy the balance of the ground floor not occupied by the lobby and entrance.[88]

Although little is known about James Welsh, from the numerous articles in the San Francisco Chronicle, he appears to have been a builder and developer.[89]

A native of the Bay Area, Herman Carl Baumann studied at the San Francisco Architectural Club. He worked in the offices of Thomas Edwards, Norman Sexton, and the George Wagner Construction Co. before opening his own practice in 1924. He then partnered with Edward Jose, a former City building inspector for a short period of time. Baumann had a prolific career in San Francisco, stating he had designed over 1,150 buildings, including apartments, pairs of flats, and single-family residences, in a self-written career summary in 1952. Notable works includes 620 Jones Street (The Gaylord Hotel, 1928), 290 Lombard (apartment building, 1940), and numerous houses in Pacific Heights, including 1950 Clay Street (1930), 1950 Gough Street (1926), and 1895 Pacific Avenue (1931).

By 1956 the hotel owner was listed as the Commodore Hotel, who hired Bolton White and Jack Hermann to complete the renovation of the hotel lobby and first floor. The firm of White and Herman was established in 1948. The practice expanded in 1958 to include Allen Steinau, and in 1961 with Don Hatch. After 1961

---

87 "Bachelor Hotel to Be Built on Sutter Street," *San Francisco Chronicle*, 20 October 1923.

88 "10-Year Lease Is Signed for Hotel," *San Francisco Chronicle*, 1 January 1924.

89 "Record of Realty and Building Operation," *San Francisco Chronicle*, 27 April 1901; "Elegant Modern Homes," *San Francisco Chronicle*, 27 September 1914; "$70,000 apartment House to Be Built," *San Francisco Chronicle*, 2 September 1922; and "Builder Will Erect 28 Small Dwellings," *San Francisco Chronicle*, 31 May 1924.

the firm was known as Hatch, White, Hermann, and Steinau.[90] The firm featured a diverse work of modern architecture, however they are primarily known for 2233 Post Street (commercial, 1962), which was the first commercial building completed under the Western Addition Redevelopment Agency Program.[91]

The Commodore Hotel would install the "Commodore" marquee in 1957 and continue to be listed as the owner until 1966. As of 1969 Craig P. Smith was listed as the owner until 1991. From 1995-2006, building permits listed several owners, including Ingrid Summerfield (1997), Joie De Vivre Hospitality (2004), and Commodore LLC. (2006).

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

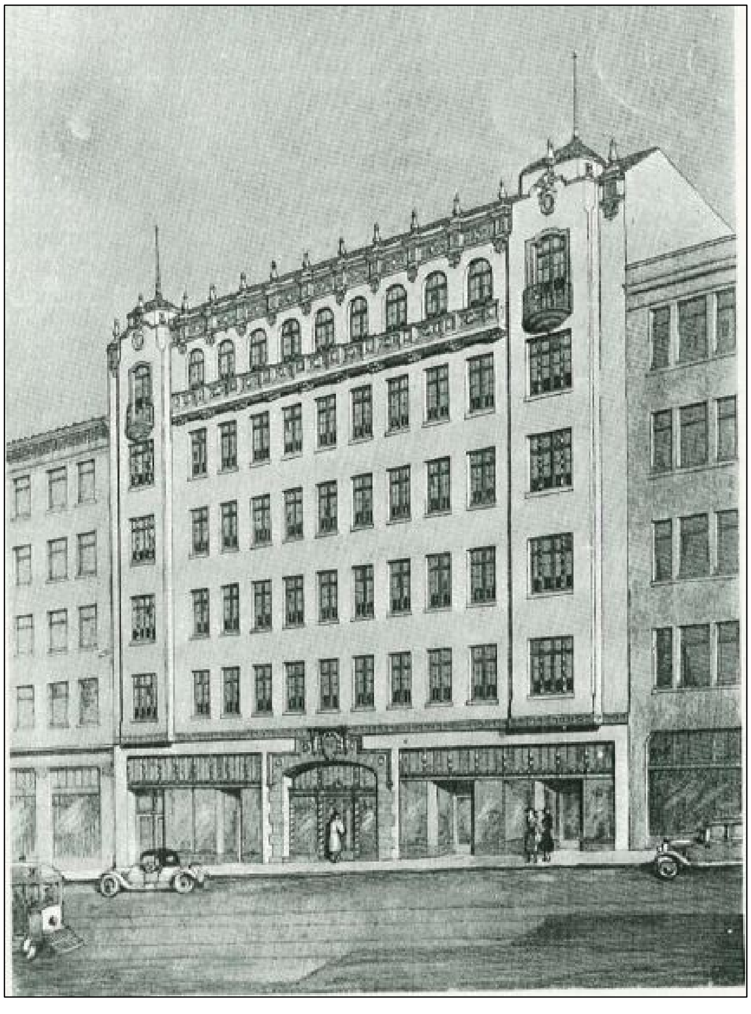


Figure 218. 1924 rendering of 817-831 Sutter Street. (Source: Architect and Engineer, January 1924)

[90] "People in the News," *San Francisco Chronicle*, 19 January 1961.

[91] San Francisco Planning Department, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, Appendix B, p. 3.

Figure 219. 1925 photo of 817-831 Sutter Street. (Source: Blue Book, 1925)

Figure 220. 2006 photo of 817-831 Sutter Street. (Source: Academy of Art University)

Figure 221. 1938 Aerial Photograph, 817-831 Sutter Street. (Source: Environmental Data Resources)

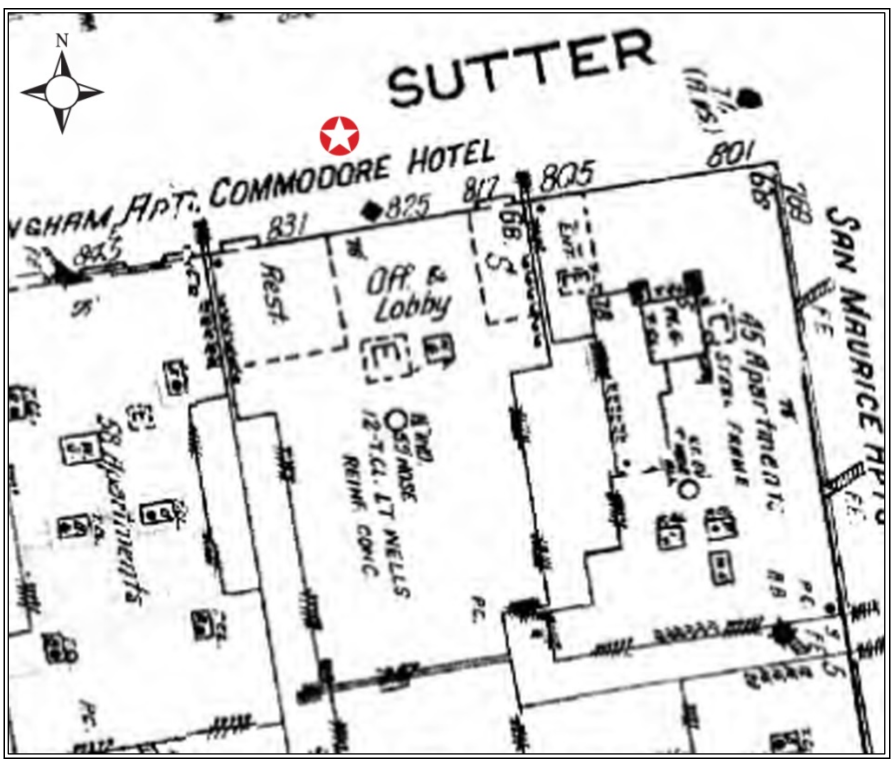


Figure 222. 1948 Sanborn Fire Insurance Map, 817-831 Sutter Street. (Source: Environmental Data Resources)

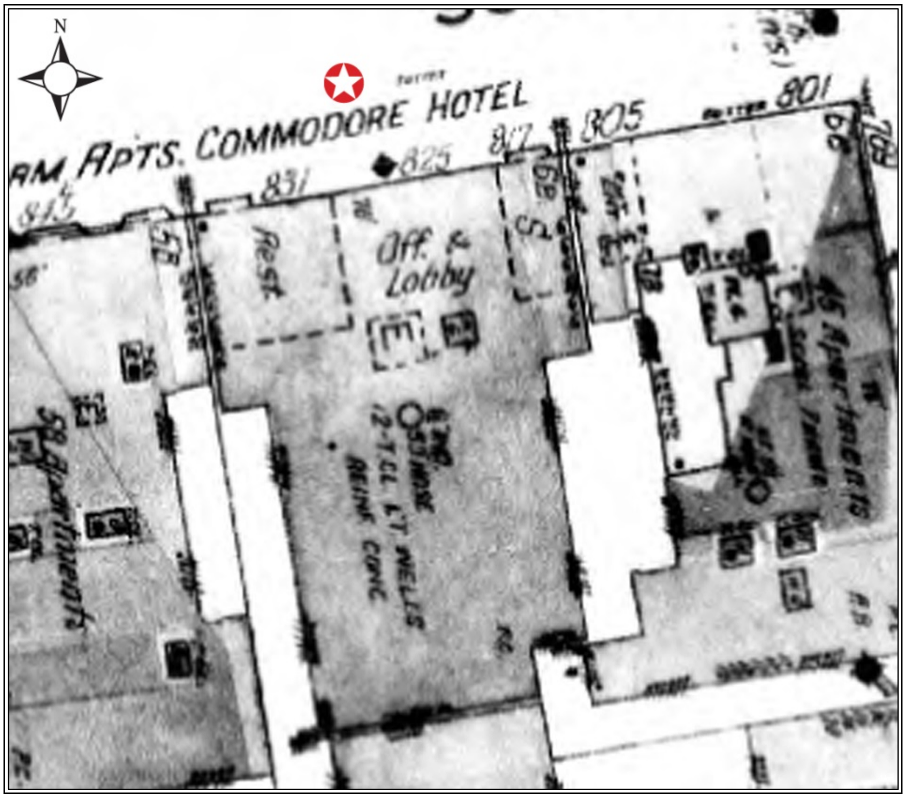


Figure 223. 1974 Sanborn Fire Insurance Map, 817-831 Sutter Street. (Source: Environmental Data Resources)

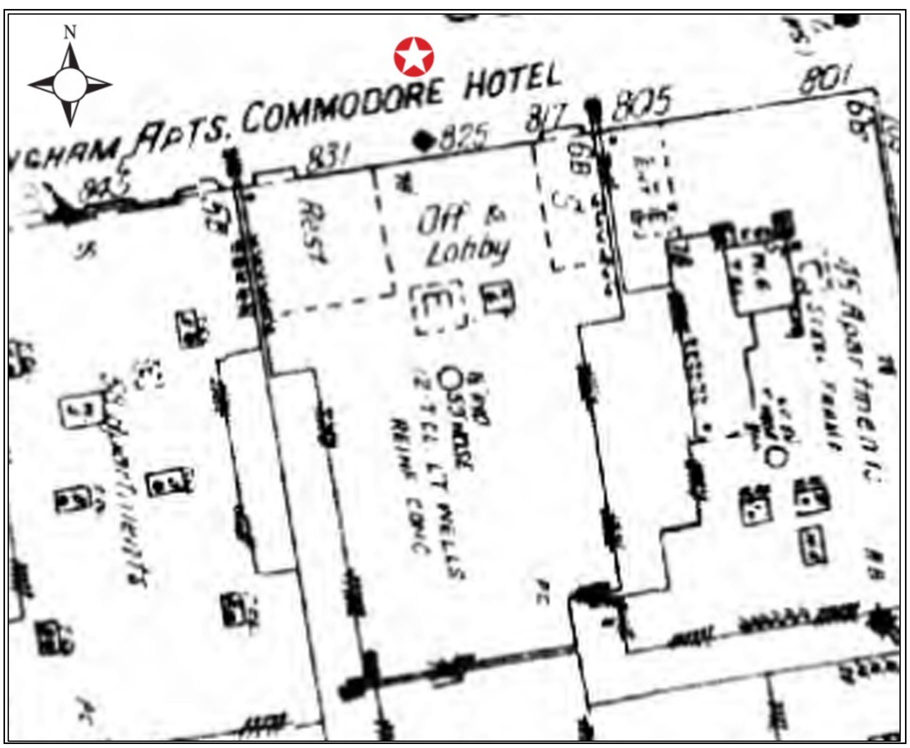


Figure 224. 1988 Sanborn Fire Insurance Map, 817-831 Sutter Street. (Source: Environmental Data Resources)

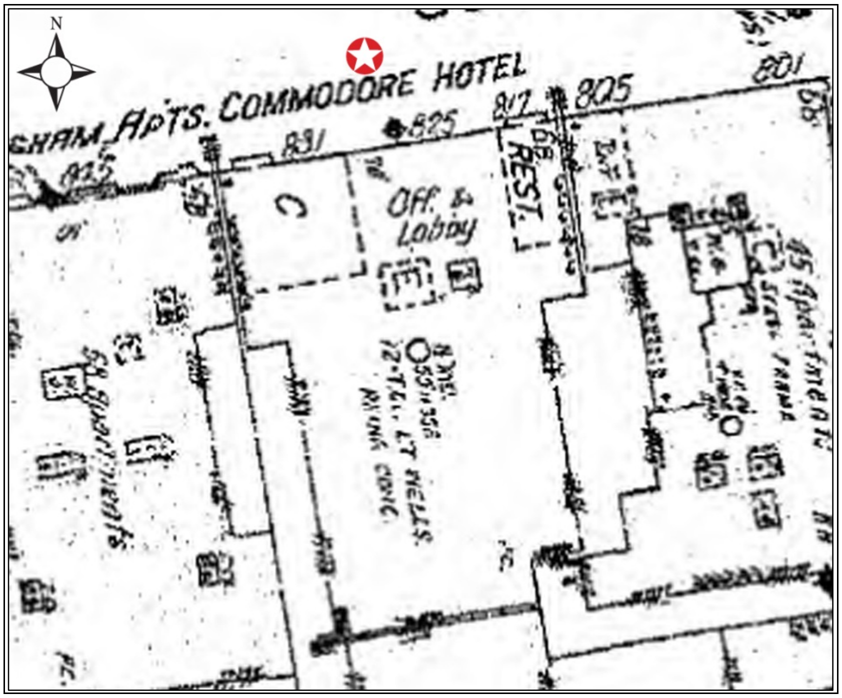


Figure 225. 1999 Sanborn Fire Insurance Map, 817-831 Sutter Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 817-831 SUTTER STREET / APN: 0299021

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 16, 1923 (Oct. 31, 1923)	121129	Mr. James Welsh	H.C. Baumann & Edward Jose	$100,000	Build Class "C" Hotel Building; concrete construction.
Aug. 13, 1956 (Sept. 14, 1956)	(169421)	Commodore Hotel	Briton White + Jack Hesman	$7,000	Alter hotel lobby front as per plan.
June 24, 1957 (June 28, 1957)	199400 (178679)	Commodore Hotel		$150	Install electric "Coffee Shop" sign.
Oct. 11, 1957 (Oct 31, 1957)	205514	Commodore Hotel		$300	Install electric "Commodore" letters on marquee canopy.
July 29, 1966 (Aug. 4, 1966)	332898 (297390)	Commodore Hotel		$250	Manufacture and install complete stationary awning; frame of steel tubing cover of approved canvas.
Nov. 5, 1969 (Jun. 24, 1970)	(345498)	Craig P. Smith		$3,000	Sprinkler ground floor rooms. Install handrail west side stairway to street. Install ventilation top of elevator shaft on roof. Enclose stairway lobby to ground floor
July 6, 1970 (July 16, 1970)	385979 (346278)	Commodore Coffee Shop		$420	Install sign on wall.
Apr. 11, 1980 (Apr. 24, 1980)	8003129 (45909)	Craig P. Smith		$10,000	Replace existing wood casement windows. Windows to be bronze aluminum as manufacture by J.R. Flynn Company. (See dwg. attached to permit).
Oct. 28, 1987 (Aug. 29, 1991)	8715532 (680316)	Craig P. Smith		$16,000	Parapet Safety Program work; remove and replace wood roof structure. At front of

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					building including clay tiles and related items.
Aug. 19, 1988	8812200 (594358)	Craig P. Smith		$16,000	Re-roofing; remove all the old roof install 1 layer base sheet, 3 layers ply sheet with hot asphalt. Install new roofing gravel. New shingle on front roof.
Feb. 22, 1991	9102944 (665939)	Craig P. Smith		$3,000	Recovering existing canopy with canvas.
Apr. 22, 1997	9707168 (819833)	Ingrid Summerfield		$34,000	Install new Fire Alarm system.
Dec. 23, 2004 (Mar. 16, 2005)	200412232093 (1050369)	Joie De Vivre Hospitality	Lerner and Associates	$12,900	Barrier removal work to make front entrance accessible by replacing part of sidewalk and curb. Install automated power door system. Sidewalk build up.
May 10, 2006	200605101259 (1086321)	Commodore LLC.		$1,500	Upgrade ANSIL fire system in existing hood on 1st floor.
July 14, 2010 (July 26, 2010)	201007146602 (127344)	AAU		$30,000	To comply with NOB #201052695. Replace approx. 100 doors from guest rooms with new fire rated doors (20 min. rated). Replace entry doors to all living units.
Aug. 3, 2010	S.F. Property Info Permit: 201008038026 (*permit filed but never issued)			$5,000	Replace 4 windows, aluminum to vinyl, (windows not visible from street).
Oct. 14, 2011 (Oct. 25, 2011)	201110146837 (1250607)	AAU		$5,000	Fire sprinkler permit (basement interior only): Disconnect existing hose racks from the domestic water supply & reconnect to the fire sprinkler supply.
Nov. 9, 2011	201111098578	AAU		$35,000	Re-roofing: Remove gravel and clean. Then install SPF cool roof system.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 24, 2013 (Mar. 4, 2013)	201301248686 (1287677)	AAU		$500	Remove wall sign at ground level.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

817-831 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District (and is therefore an historical resource under CEQA).

In addition to being listed on the NRHP, 817-831 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential and hotel development in Nob Hill during the post-1906 earthquake Reconstruction period. (On the basis of this association, the property is a contributor to the NRHP-listed historic district, which is an expansive, cohesive district in San Francisco's Nob Hill neighborhood.) In addition, the property is eligible for the CRHR under Criterion 3, as an intact contributor to this historic district of multi-family residences and hotels. The property represents a distinctive example of a hotel building in Nob Hill with unique Spanish Revival-style details.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

The subject property retains integrity on the upper floors and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1924 to 1940, with the end date corresponding with end of the historic district's period of significance.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: six-story height; T-shaped plan
- Flush with sidewalk
- Symmetrical design composition
- Flat, red-clay tile roof with short parapet
- Delineated commercial storefront
- Symmetrical fenestration pattern; larger openings on projecting outer bays and smaller openings through central bay
- Detailed cornice and frieze
- Pinnacles along the roofline
- Sixth story rounded balcony with decorative entablature and brackets
- Stucco wall surface
- Original double-hung windows on secondary elevations
- Fire escape (north elevation)

Interior

- Spatial arrangement: open lobby interior, flanked by commercial spaces, and double-loaded corridors in upper floors
- Original elevator space
- Original tile floors and fireplace (ground story)
- Decorative molding, columns and pilasters in lobby
- Marble stairs and base
- Entryway, door pattern on wall
- Original doors and trim
- Rounded ceilings, and trim and wainscoting in upper-level hallway

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- The storefronts and lobby doors reconfigured by the Commodore Hotel in 1956 (Permit 169421)
- Installation of "Commodore" marquee canopy in 1957 (Permit 205514)
- Awning on eastern storefront installed, 1966 (Permit 332898); resheathed, 1991 (Permit 9102944)
- Upper-floor windows replaced by aluminum windows in 1980 (Permit 8003129)
- Installation of "Commodore" blade sign (AAU, Memo to SWCA, 2/2/2016)
- Installation of "Canteen" projecting box sign (AAU, Memo to SWCA, 2/2/2016)
- Installation of jalousie windows on ground level (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security cameras added

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Windows on east and west elevations replaced with aluminum windows in 1980 (Permit 8003129)
- Replacement aluminum windows on west elevations (2/2/2016)
- Reroofing (Permit 201111098578)

Post-AAU Alterations:

- Four aluminum windows were replaced with vinyl windows on the east elevation in 2010 by AAU (Permit 201008038026 [*permit filed but never issued])
- Security cameras added

INTERIORS

The lobby appears to have been largely reconfigured into its current state in 1956 as part of Permit 169421, which included the removal of original elevator doors and other interior features. The coffee shop located at the eastern storefront was extensively altered through the addition of wood wall paneling, booths and tables, a coffee table, and kitchen. The western ground-level storefront was previously occupied by the Red Room Bar; however, AAU removed all remnants of this business in its conversion of the space into a yoga studio. Archival research at SF Heritage and the San Francisco Public Library has not identified historic photographs or material indicating the original appearance of this space. The upper-level residential floors have been altered through extensive replacement of doors and the installation of modern carpet. Modern hotel, keycard door fixtures suggest that the replacement of the doors was completed prior to AAU's acquisition of the building. In addition, a new range fire suppression and sprinkler system were installed by AAU (Permits 200605101259 and 201110146837).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

817-831 SUTTER STREET (ES-14)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Cameras	Post-2006	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
SECONDARY ELEVATIONS Known/Visible Exterior Alterations												
Window Replacement on secondary elevation	2010	Yes	No	No	N/A	N/A	N/A	N/A	N/A	No	Yes	SOIS compliant approach would be to remove and replace vinyl windows with period-appropriate windows, based on documentary and/or material evidence; per SOIS, original features should be retained and repaired

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												where possible, and, where necessary, replaced in-kind (to match in materials and appearance)
Security Cameras	Post-2006	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs of the building indicate that the original windows overall were divided light casements. The installation of four vinyl windows on the secondary elevation is not consistent with the distinctive character and materials of the historic fenestration on the building.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. The nonoriginal aluminum windows introduce an element that is not consistent with the historical character and appearance of the property.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Window Replacements: Rehabilitation Standard No. 5 is not applicable to this project.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs of the building indicate that the original windows divided light casement windows. The installation of four vinyl windows on the secondary elevation is not consistent with the original windows, which contributed to the historic character of the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the vinyl windows are not consistent with the historic character of the property, new windows can be installed that replicate the materials and window pane configuration of the original divided-light windows.

RECOMMENDATIONS

The security cameras are generally compliant with the SOIS; no design modifications are recommended at this time.

The window removal and replacement does not meet Standards No. 2, 3, 5, 6, or 9. However, this elevation is not visible from the public right of way, and the affected features are considered of secondary character-defining importance. A SOIS-compliant approach would be to remove and replace vinyl windows with period-appropriate windows, based on documentary evidence. In addition, per the SOIS, original features should be retained and repaired where possible, and, where necessary, replaced in-kind (to match in materials and appearance).

860 SUTTER STREET (ES-13)

APN: 0281006

Construction Date: 1913

Architect/Builder/Designer (if known): G. Albert Lansburgh

Previous Status: Category A

Previous CHR Status Code: 1D

Date of Past Surveys/Evaluations: 1976; 1978; 1991

AAU Acquisition Date: 2003

Current CHR Status Code: 1D

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

Designed by G. Albert Lansburgh, 860 Sutter Street was constructed in 1913 as a hotel. The six-story building has a T-shape plan and is set flush to the sidewalk on a rectangular, sloped lot. With its Gothic Revival-influenced style, the property exhibits a design emphasizing the vertical axis, with continuous vertical piers separating each window bay and creating an attenuated appearance on the facade.

The design composition is symmetrical and differentiated in three segments, from ground floor, mid-stories, to the projecting highly ornamental top story/roofline. The six-story building is capped with a flat roof and an elaborate projecting steel cornice and parapet accented by keyhole openings and octagonal sheet metal columns with finials.

Recessed in the western corner of the façade, the main entrance is accessed via marble stairs. The doors display horse-shoe arches and tracery-like glazing. Rectangular and rounded windows with articulated ornamental surrounds are located on the first story with recessed square and rectangular windows below providing light to the basement. A short, secondary door is located on the eastern side of the elevation and leads to a walkway along the eastern side of the lot.

Above the first floor the fenestration pattern consists of narrow vertical bays with rectangular and arched upper windows recessed in the wall plane and paneled spandrels. Vertical piers separate the rows of upper-level windows with window types including wood and replacement vinyl double-hung windows and fixed glass windows. A central fire escape is located on the primary elevation.

Figure 226. 860 Sutter Street.

Figure 227. 860 Sutter Street, close up of the first story on the primary elevation.

Figure 228. 860 Sutter Street, close up of the main entry on the primary elevation.

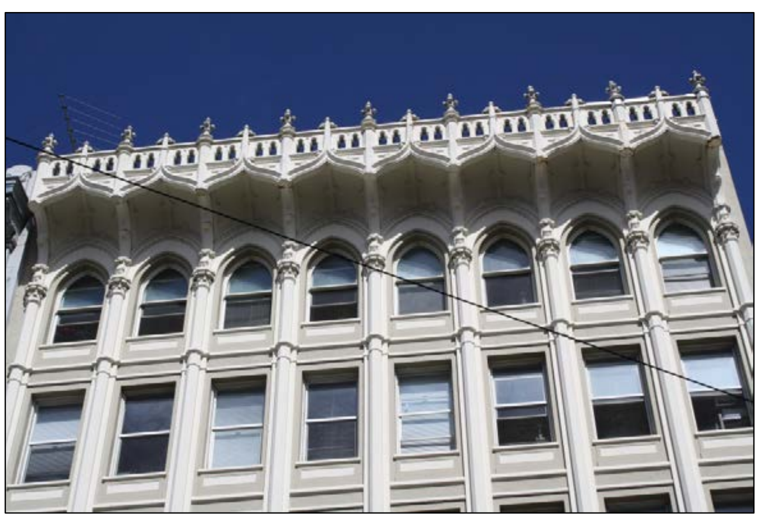


Figure 229. 860 Sutter Street, close up of the upper story windows and projecting parapet on the primary elevation.

Secondary elevations are visible on the east from a narrow walkway and on the north from a small open area located between the adjacent buildings. On the ground floor of the eastern elevation is the kitchen, visible through large rectangular windows and accessed through multiple single doors. Above the ground floor, the fenestration pattern established on the primary elevation continues on the eastern elevation. On the north elevation, horizontal bands of evenly spaced windows are located on the upper stories. A second fire escape is centered on the north elevation. Horizontal seismic bracing supports join the north elevation of the structure to the rear wall on the property. Board from concrete is visible on the north elevation. There are awning windows on the first floor of the eastern elevation and horizontal bands of vinyl double-hung windows on upper stories of the east and north elevations.

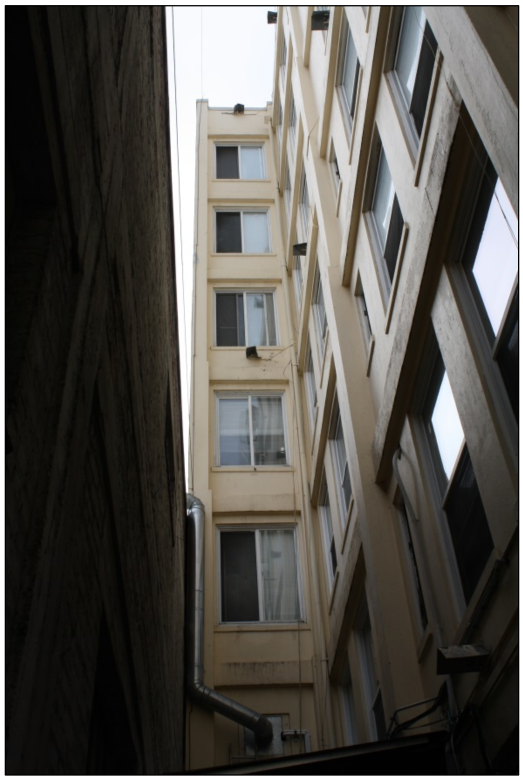


Figure 230. 860 Sutter Street, southern perspective of the upper stories on the eastern elevation.

Figure 231. 860 Sutter Street, southern perspective of the first floor on the eastern elevation.

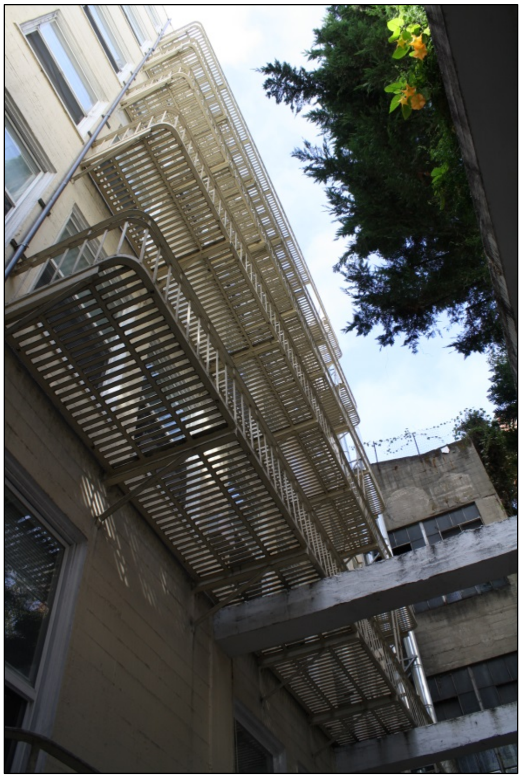


Figure 232. 860 Sutter Street, southwestern perspective of the north elevation.

The main entry leads to a lobby featuring decorative wainscot, metal radiators, wood flooring, and light fixtures. The lobby opens to an elevator with porthole-style elevator doors, a communal space, and hallways leading towards the residential areas. Original paneled wood doors and trim and transoms windows or panels are featured throughout the interior spaces. The basement has an open plan dining area that features decorative columns, trim, and wainscoting.

Figure 233. Interior lobby of subject property.

Figure 234. Interior decorative stair of subject property.

SITE HISTORY

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

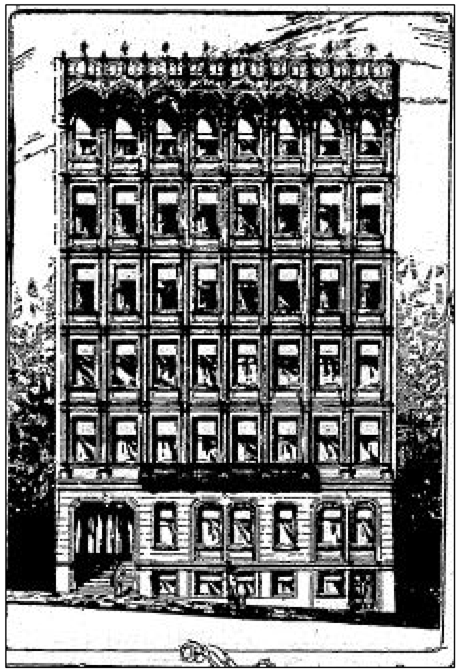


Figure 235. 1913 rendering photo of 860 Sutter Street. (Source: *San Francisco Chronicle*, December 1913)

Figure 236. 1914 photo of 860 Sutter Street. (Source: Pacific Marine Review, December 1914)

Figure 237. 1976 photo of 860 Sutter Street. (Source: San Francisco Heritage)

Figure 238. 1938 Aerial Photograph, 860 Sutter Street. (Source: Environmental Data Resources)

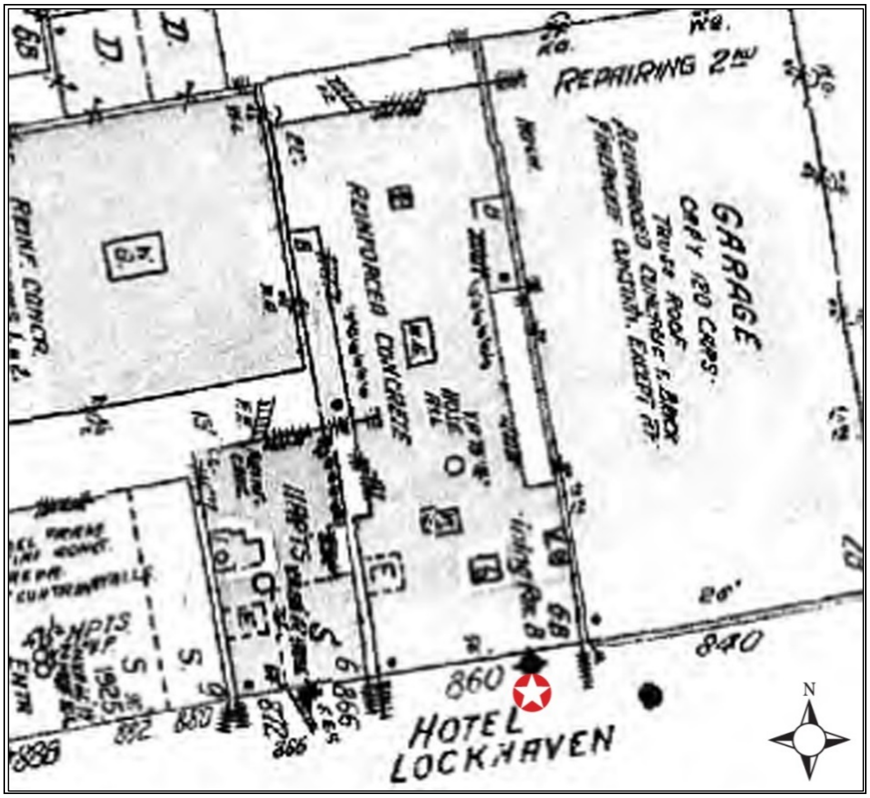


Figure 239. 1948 Sanborn Fire Insurance Map, 860 Sutter Street. (Source: Environmental Data Resources)

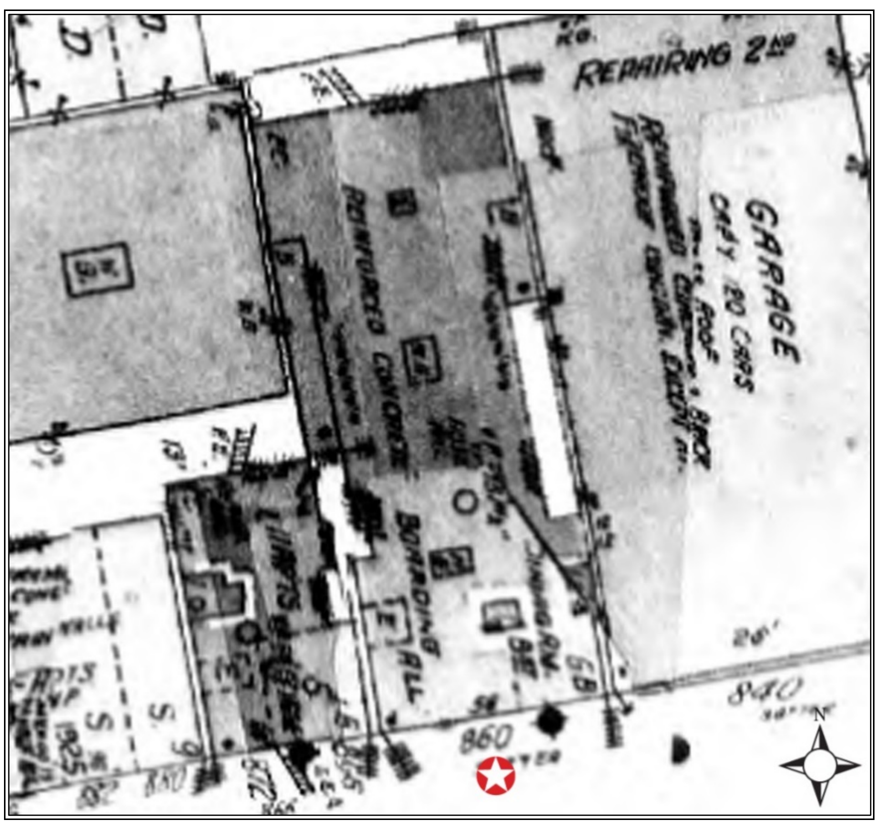


Figure 240. 1974 Sanborn Fire Insurance Map, 860 Sutter Street. (Source: Environmental Data Resources)

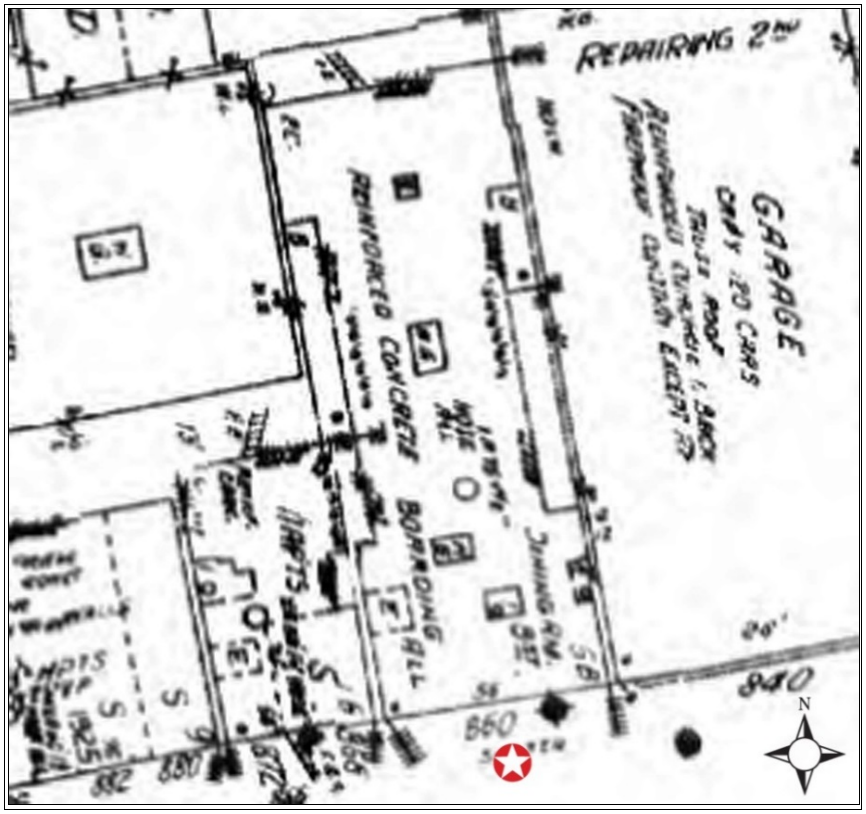


Figure 241. 1988 Sanborn Fire Insurance Map, 860 Sutter Street. (Source: Environmental Data Resources)

Figure 242. 1999 Sanborn Fire Insurance Map, 860 Sutter Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 860 SUTTER STREET / APN: 0281006

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Sept. 26, 1913	51570	A. Eisenberg	G. Albert Lansburgh	$65,000	To build a Class C - Hotel building.
Mar. 13, 1918	80920	A. Eisenberg	G. Albert Lansburgh	$900	Underpin east wall of above building bringing footings down the level of adjoining building to be built.
Apr. 29, 1918	81627			$5,000	Foundation (only) for 2-story and basement garage; on the lot situated north side of Sutter Street between Leavenworth and Jones.
Jun. 4, 1948	108345 (909271)	Margot Eisenberg		$3,500	Line chute with sheetrock plaster, patch plaster on exterior of chute. Install sprinkler head in chute, repair metal portion of chute and damaged skylights.
May 10, 1957	197810 (178392)	Margot Eisenberg		$600	To repair fire damage in Room #502. Replace mill work, glass, plaster and painted. Replace electric fixtures.
Jan. 29, 1973	417969	Henry Davis		$3,000	Repair fireproofing basement chimney walls. Provide fire sprinkler system in storage area. Enclose stairs to basement with self-closing doors. Enclose interior stairways. Install fire type doors.
Feb. 10, 1984	8401559 (512472)	Sutter Street Partners		$3,600	Install trash room in lower area to comply with DAHI.
Sept. 24, 1987	8713744 (580363)	Hotel Beyes Ford Manor		$2,880	Complete canopy steel tube frame (welded construction).
Feb. 3, 1988	8801308			$550	Build (non-baring) partition wall, install sinks, outlet.
July 26, 1989	8913284 (623989)	Beresford Corporation		$1,400	Repair sidewalk, remove and replace with new concrete.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 26, 1989	8913288 (623990)	Beresford Corporation	Kurtzman + Assoc.	$4,500	Construct gas room for PG&E service.
Sept. 5, 1991	9116319 (680668)	Beresford Corporation	Kurtzman + Assoc.	$2,200	Complete work started on Application #8913288 – room for PG&E service.
Sept. 8, 1993	9315462 (729250)	Beresford Corporation		$12,000	Repair cracks and spalding, extra paint on northeast and west walls.
Apr. 28, 1994	9406731 (745649)	Beresford Corporation		$11,000	Renew Application #9315462
Apr. 7, 1995	9504989 (767373)	Beresford Corporation		$3,200	Construct meter cabinet for PG&E gas service.
Feb. 18, 1997	9704990 (821734)	Beresford Corporation		$18,750	Install new fire sprinkler system (basement & 1st floor).
Dec. 11, 1997	9724871 (839260)	Beresford Corporation		$1,500	Remove (non-bearing) partition wall on 1st floor behind front desk. Patch & paint
July 22, 1998	9813991 (856877)	Beresford Corporation		$900	Revision to Application #9704990. Work on fire sprinklers.
Nov. 18, 1998	9826120 (867955)	Beresford Corporation	Gelfand RNP Architects	$2,200	Install steel frame and solid core wood door. Dining room for residential only – no public use.
Apr. 26, 2000	200004268282	Beresford Corporation	Gelfand RNP Architects	$45,000	Install new tile flooring in dining room. Install new food service cabinets with sinks in dining area and kitchen. Remove portion of kitchen/dining wall for pass-through bar.
Jan. 15, 2002	200201157038 (957234)	Beresford Corporation		$22,500	Installation of new fire sprinkler system. Completion of 1st floor, 2nd, 3rd, 4th, 5th, 6th floor, and hallways.
July 28, 2006	200607287952 (1093702)	AAU	Tom Elliot Fisch	$1,200	Building code complaint; hand rails per request of Daniel Shiu SF-DBI inspector, comply with NOV #200670329.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Aug. 10, 2010	201008108454 (1218464)	AAU		$22,000	Re-roofing. Prepare roof and install new SPF roofing system.
Sept. 13, 2010	201009130696 (*permit filed but never issued)			$25,000	To comply with NOV #201052696. Replace existing deteriorating windows on building exterior.
May 9, 2011	201105095666 (1238257)	AAU		$1,000	Remove the wall sign at east side of building as required per item 1 of Planning Department letter dated April 28, 2011. NOV #201052696(BID), 201052045(PID).
Jan. 24, 2013	201301248683 (1287676)	AAU		$500	Remove wall sign at ground level. Remove signage from all sides of canopy.
May 20, 2013	201305207346 (1294379)	AAU		$25,000	To comply with Ord. 029-13 only; installation of grab bars in SRO at the following locations: (5) common shower + (1) toilet rooms per floor (6) = 36 total.
Jan. 21, 2014	201401216709 (1314902)	AAU		$1,500	Add cylinder to existing UL300 Fire System to protect additional exhaust hood (hood & duct protection only).
Oct. 23, 2014	201410239701			$6,000	Fire Alarm system TI, add 1 monitor module for kitchen and hood system.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

860 Sutter Street is a contributor to the National Register of Historic Places (NRHP)-listed historic district, Lower Nob Hill Apartment Hotel Historic District and is therefore an historical resource under CEQA. In addition to being listed on the NRHP, 860 Sutter Street appears eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an embodiment of multi-family residential/hotel development in the Nob Hill neighborhood during the post-1906 earthquake Reconstruction period. The property is also eligible for the CRHR under Criterion 3, as a distinctive example of a multi-family residential/hotel building with unique Gothic Revival-style details in the Nob Hill neighborhood.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the “ability of a property to convey its significance.”[92] In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15). 860 Sutter Street retains integrity and remains eligible as a contributor to the NRHP historic district and a CRHR-eligible historical resource. The period of significance is 1913 to 1940, with the end date corresponding with end of the historic district’s period of significance.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: mid-rise, T-shaped plan, flush with sidewalk
- Flat roof
- Elaborate projecting steel parapet with keyhole openings, and octagonal sheet metal columns with pinnacles at top
- Three-part vertical design composition, with distinctive stylistic treatments for ground, middle, and upper stories
- Fenestration pattern consisting of narrow vertical bays with arched upper windows and paneled spandrels
- Vertical piers separating rows of upper-level windows
- Articulated ornamental window surrounds on first floor
- Original wood frame and sash single-hung windows on ground and upper stories
- Decorative entryway with glass and wood doors and marble steps
- Fire escape (south and north elevations)

Interior

- Spatial arrangement and circulation; double-loaded corridors
- Staircase and curved step and railings
- Main lobby, communal space, and associated decorative features (including wainscot)
- Original paneled wood doors and trim, some with transoms
- Original porthole-style elevator doors
- Applied ornamental features, including on ceilings, walls, floors, and light features
- Wood floor in lobby
- Metal radiators in lobby
- Open-plan basement-level room (originally appears to have served as a cafeteria), with decorative columns, trim, and wainscoting

[92] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, National Register Branch, 1990.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Steel tube frame awning installed in 1987 (Permit 871344), replacing an earlier awning that was installed prior to 1976 (1976 DCP Survey)
- Eastern ground-level window in-filled with wood and small vent (AAU, Memo to SWCA, 2/2/2016)
- Replacement of eastern ground-level door (AAU, Memo to SWCA 2/2/2016)

Post-AAU Alterations:

- Security cameras added (visual observation and historic photographs)
- Awning cover replaced (as indicated by removal of signage from canopy; Permit 201301248683)
- Windows replaced (vinyl) between 2nd and 5th floors in 2010 (Permit 201009130696 [*permit filed but never issued])

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Replacement door next to kitchen near south elevation (AAU, Memo to SWCA, 2/2/2016)
- Ducts have been added on the east elevation from kitchen and extends past roof, a smaller secondary duct near the southern part of the east elevation, and two on the rear elevation (AAU, Memo to SWCA, 2/2/2016)
- Large concrete beams, presumably a seismic upgrade, have been installed on the rear elevation (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Windows replaced (vinyl) between 2nd and 5th floors circa 2006 (Permit 201009130696 [*permit filed but never issued])

Dates inconclusive or awaiting further data:

- Installation of sheet metal tents are regularly spaced above 1st, 3rd, and 4th floors and the cornice, apparently for use as lighting rods (AAU, Memo to SWCA, 2/2/2016)
- Light fixtures have been upgraded (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

The lobby appears largely intact, retaining many of its character-defining features as discussed above. With the exception of carpeting in hallways and fluorescent lighting, the upper-level residential floors have not been extensively altered. The basement, which currently functions as a cafeteria, has been altered through the installation of recessed lighting along the outer edge of the ceiling and new tile flooring. In addition a fire suppression system was installed in 2014 (Permit 201401216709).

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

860 SUTTER STREET (ES-13)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Cameras	Post-2003	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Awning Cover	Post-2003	Yes	Yes	N/A	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Windows replaced on 2nd through 5th floors (vinyl) (source: visual observation and historic photographs)	2010	No	No	No	N/A	No	No	N/A	N/A	No	Yes	It is recommended that extant noncontributing windows be replaced with windows matching the originals in size, shape, glazing, framing materials, thickness and profile, overall configuration and

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												operation. Design of replacement windows shall be based on evidence (historic photos, extant historic windows) rather than conjecture.
SECONDARY ELEVATION Known/Visible Exterior Alterations												
Windows replaced on 2nd through 5th floors (vinyl) (source: visual observation and historic photographs)	Circa 2006	Yes	No	No	N/A	No	No	N/A	N/A	No	Yes	It is recommended that extant noncontributing windows be replaced with windows matching the originals in size, shape, glazing, framing materials, thickness and profile, overall configuration and operation. Design of replacement windows shall be based on evidence (historic photos,

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
												extant historic windows) rather than conjecture.

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Awning Cover: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Window Replacements: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not obscure or damage distinctive character-defining features.

Awning Cover: The project complies with Rehabilitation Standard No. 2. The current steel-tube frame for the awning was installed in 1987 by a previous occupant (Permit 871344); this replaced an earlier awning cover. Although the decorative entryway is considered character defining, the ornament is within the recessed space and does not extend to the surrounds. The current awning cover therefore does not obscure character-defining features.

Window Replacements: The project does not comply with Rehabilitation Standard No. 2. Historic photographs indicate that original windows featured wood frames. These original windows were removed and replaced with new windows that differ in appearance and materials.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Awning Cover: Rehabilitation Standard No. 3 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the original windows on the primary and secondary elevation were wood frame.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Awning Cover: Rehabilitation Standard No. 4 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Awning Cover: The project complies with Rehabilitation Standard No. 5. The previous awning cover that the current project replaced was installed after 1987 and was not considered character defining.

Window Replacements: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original windows, which were examples of the distinctive materials, features, and craftsmanship that characterized the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Awning Cover: Rehabilitation Standard No. 6 is not applicable to this project.

Window Replacements: The project does not comply with Rehabilitation Standard No. 6. Rather than retaining and repairing character-defining windows, the original windows were removed and replaced with vinyl windows.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Awning Cover: Rehabilitation Standard No. 7 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

Awning Cover: Rehabilitation Standard No. 8 is not applicable to this project.

Window Replacements: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Awning Cover: The project complies with Rehabilitation Standard No. 9. The project replaced a non-character-feature and does not obscure character-defining features.

Window Replacements: The project does not comply with Rehabilitation Standard No. 9. Historic photographs indicate that the original windows on the primary and secondary elevations were wood windows. The project involved the removal of original windows, which were examples of the distinctive materials and craftsmanship that characterized the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Awning Cover: The project complies with Rehabilitation Standard No. 10. The awning covers and framing they sheath could be removed at a future date with no impairment to the building.

Window Replacements: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the vinyl windows

RECOMMENDATIONS

To facilitate SOIS compliance non-original vinyl windows should be removed using the least invasive means possible to minimize damage to surrounding surface and materials. Using documentary evidence, new windows should be installed to match historic fenestration in terms of configuration, function, muntin patterns, profile, and thickness of frames.

2295 TAYLOR STREET (ES-2)

APN: 0066001

Construction Date: 1919

Architect/Builder: Perseo Righetti

Previous Status: Category A

Previous CHR Status Code: 3S

Date of Past Surveys/Evaluations: 1984

AAU Acquisition Date: 2003

Current CHR Status Code: 6Z

Applicable Criteria: N/A

Historical Resource? No

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

The building at 2295 Taylor Street was constructed in 1919 as a private garage. The building was converted into an automotive repair shop in the early 1950s, then into a commercial space by 1970, and then into an educational facility by the San Francisco Art Institute in 1993. The building has a rectangular plan and is set flush to the sidewalk on a rectangular, sloped lot, with a primary elevation facing Taylor Street and secondary elevations facing Chestnut Street and the neighboring property to the west.

The building has minimal Mission Revival details and is two-story building is capped with a flat roof and a parapet with a shallow copping at the eaveline. Constructed of reinforced concrete, board-formed concrete is visible around the building.

Figure 243. 2295 Taylor Street.

Located at the northeast corner of the building is a recessed entryway with non-original aluminum glass double-doors that is flanked by a transom and large storefront windows, and set at a 45 degree angle to face the corner of the block. The east elevation is divided into five bays by columns with a larger center bay. The columns rise just above the parapet and are capped with a shallow copping. Two sets of nonoriginal large three-part storefront windows are located immediately east of the main entry. To single metal personnel doors are located on the southern bays of the elevation. The second floor features a vertical band rectangular fixed-glass windows; three in the smaller bays and nine in the center bay. The northern most bay has an in-filled recessed panel instead of windows. A projecting cornice is featured on the northern, southern, and center bay above the second story windows.

Figure 244. 2295 Taylor Street, the primary elevation.

Figure 245. 2295 Taylor Street, close up of the main entry on the primary elevation.

Secondary elevations are visible on the north and west elevations. The north elevation features three bays, divided by the same columns as seen on the primary elevation. The eastern bay contains the recessed main entry on the ground floor with three fixed-glass windows above. The projecting cornice turns the corner from the primary elevation and continues on the eastern by of the north elevation. The larger central bay features a stepped parapet and two small, original rectangular multi-light windows above the second story. The western bay has a large roll-up door with an inset personnel door and a multi-light transom window. Above the door is the projecting cornice line. The western elevation facing the alley space has no fenestration or openings.

Figure 246. 2295 Taylor Street, southern perspective of the northern elevation.

Figure 247. 2295 Taylor Street, southwestern perspective of the western elevation.

SITE HISTORY

The building at 2295 Taylor Street was originally designed by Perseo Righetti for Edward Cerruti in 1919. Edward Cerruti was the owner of Cerruti Mercantile Company and had the building at 2295 Taylor originally constructed as a two-story reinforced concrete garage.

Perseo Righetti was a local architect for the San Francisco Italian community. Righetti partnered with H.P. Kuhl prior to 1909 and with A. Headman from 1909-1914. He is most known for design of the 414

Mason Street (Native Sons of the Golden West Building #2, 1911-1912) and 1239 Main Street, Angels Camp (Calaveras County Bank, 1900). [93]

The Willig Brothers operated the garage form 1929-1936. The Willig Brothers employed D.W. Ross, builder, to complete the construction of a ramp from the first to the second floor and to remove some interior walls. In 1937 the owner is listed as a Mrs. J. Brownstone, who employed Alfred F. Fisher to "close up five panels with terra cotta tile and install one 550 gallon tank." From 1961-1963 Gurley Lord operated General Tires, renamed Gurley Lord General Tires in 1963, in the building.[94]

As of 1966 Sid Patron was listed on the owner when a wall was installed between the public repair garage and business occupancy for an automotive supply store name Autotorium.[95] Donald Fisher owned the building from 1970-1972 when he the building was converted to retail space for ArtMart in 1970 and the Gap in 1971. The Gap occupied the space through at least 1983.[96] Prior to AAU's occupation of the property in 2003, it was adapted for use as an educational facility by the San Francisco Art Institute in 1993.[97]

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 248. 2003 photo of 2295 Taylor Street. (Source: AAU 2003)

---

[93] Judith. Cunningham National Register Nomination for Calaveras County Bank, 1984.

[94] Building Permit 246785 and 257054.

[95] "Autotorium," Advertisement. *San Francisco Chronicle*, 28 July 1966.

[96] "ArtMart," Advertisement. *San Francisco Chronicle*, 5 July 1970; "The Gap," Advertisement. *San Francisco Chronicle*, 11 August 1983.

[97] City and County of San Francisco Planning Department. Executive Summary Conditional Use, Case No.: 2007.1079 C, 2295 Taylor Street (AKA 701 Chestnut Street). San Francisco Planning Department, San Francisco, December 9, 2010.

Figure 249. 2011 photo of 2295 Taylor Street. (Source: Atkins)

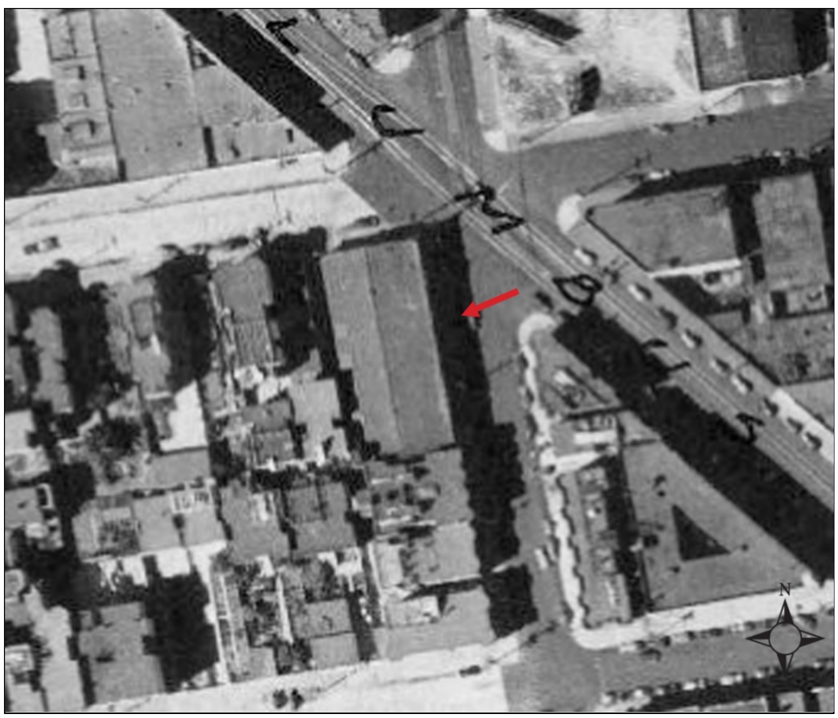


Figure 250. 1938 Aerial Photograph, 2295 Taylor Street. (Source: Environmental Data Resources)

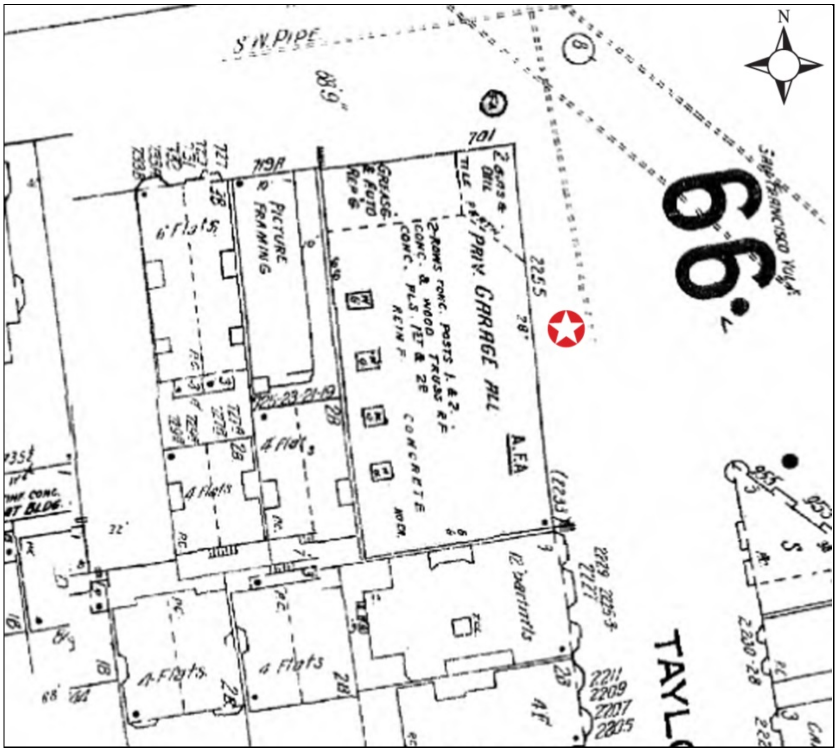


Figure 251. 1948 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

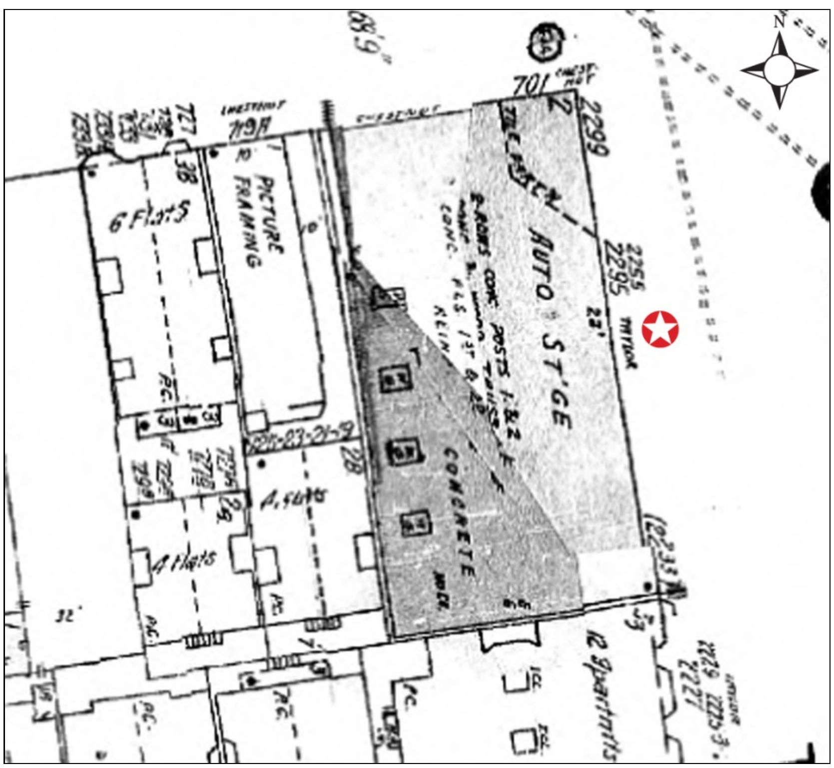


Figure 252. 1950 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

Figure 253. 1968 Aerial Photograph, 2295 Taylor Street. (Source: Environmental Data Resources)

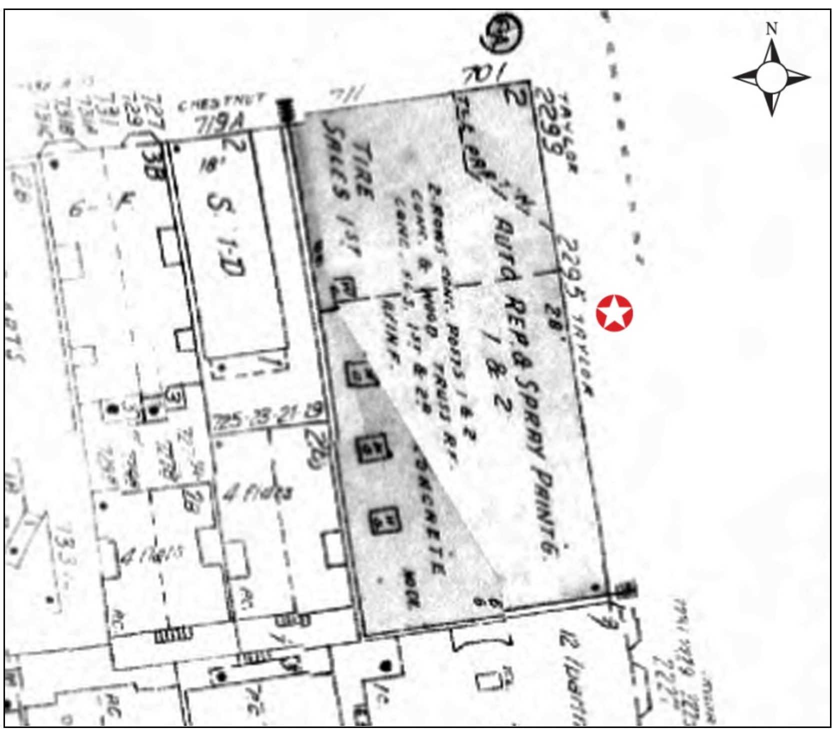


Figure 254. 1974 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

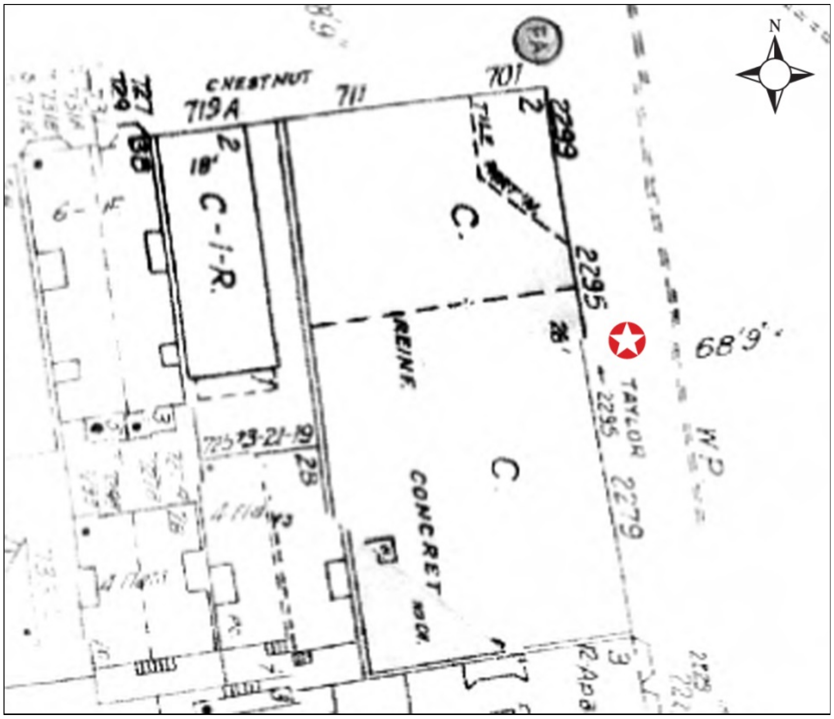


Figure 255. 1986 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

Figure 256. 1990 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

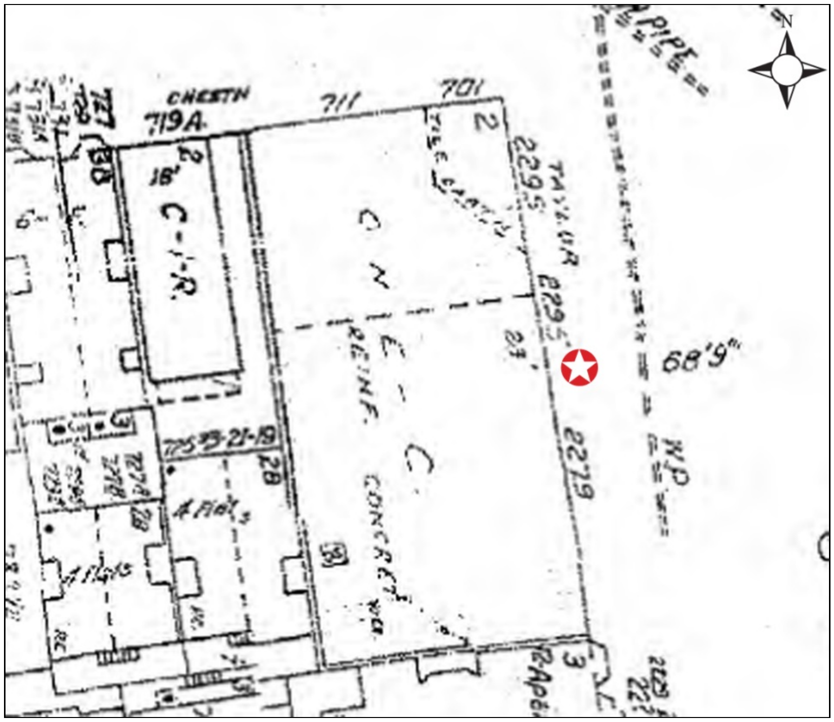


Figure 257. 1999 Sanborn Fire Insurance Map, 2295 Taylor Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 2295 TAYLOR STREET / APN: 0066001

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
July 29, 1919 (Aug. 29, 1919	87625	Edward Cerruti	Perseo Righetti		Application for a new two-story reinforced concrete garage.
Oct. 17, 1929 (Oct. 24, 1929)	182000	Willig Bros.	D.W. Ross (Builder)	$100	Remove concrete walls. Build ramp from first floor to second floor.
June 4, 1931 (June 6, 1931)	193204	Willigs Bros.	Pioneer Electric Co.	$300	“As per blue prints attached”
Oct. 23, 1931 (Oct. 27, 1931)	195864	Willig Bros.	Pioneer Electric Co.	$300	“As per blue prints attached”
Apr. 27, 1936 (Apr. 29, 1936)	18568	Willigs Bros.	D.W. Ross (Contractor)	$295	Remove two walls and leave open. One 1,000 oil tank under sidewalk installed. Repairing sidewalk.
Aug. 31, 1937 (Sept. 2, 1937)	29740	Mrs. J. Brownstone	Alfred F. Fisher	$950	Remove ramp; close up five panels with 6” terra cotta tile and install one 550 gallon gas tank.
Mar. 2, 1961 (Mar. 14, 1961)	246785 (221006)	Gurley Lord		$150	Permit to erect “General Tires” sign.
Aug. 16, 1963 (Sept. 11, 1963)	287286 (257035)	Gurley Lord		$100	Permit to move “General Tire Co.” sign.
Aug. 27, 1963 (Sept. 11, 1963)	(257054)	Gurley Lord Co.		$100	Permit to erect “Gurley Lords General Tire” sign on building wall.
July 5, 1966 (July 15, 1966)	331781 (296599)	Sid Paton		$1,800	Install two doors in entrance. Two hour wall to be placed between public repair garage and business occupancy.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Apr. 26, 1967 (Jul. 24, 1967)	342387 (309553)	Sid Paton		$1,000	No. 10-c S.F.B.C. requires a two hour separation between business 16-2 and public repair garage 15-4. (Note: this request was appealed and withdrawn).
Apr. 13, 1970	382385	Bay View Garage		$150	Permit to move sign from 1910 Union Street to 2295 Taylor Street.
Oct. 27, 1970 (Nov. 21, 1970)	396162 (350213)	Donald Fisher		$18,000	Construct new exit stair and install restrooms partitioning to create clothing store.
Nov. 2, 1970	390463 (349925)	Donald Fisher		$900	Demolish existing store fixtures, remove existing wood sash and remove non baring office partitions.
Aug. 8, 1972	410583 (368849)	Donald Fisher		$5,000	To correct code violations listed in abatement letter dated May 22, 1972; complaint #14171.
June 18, 1998	9811301			$3,000	Remove three cubicle dividers & install 3 full height walls.
May 5, 2010	201005051799			$165,000	Respond to NOV #201039318 & 201039238 change of use for adult education use. Work consists of new partitions & life safety improvements.
Aug. 18, 2010	201008189002			$55,500	Add 185 heads upright sprinklers in an existing building, new underground & hydrainlic (drainage) calculations included.
May 9, 2011	201105095672			$1,000	Painted (non-structural) sign.
Jan. 24, 2013 (Mar. 4, 2013)	201301248668 (1287702)	AAU		$500	To comply with complaint #201039420. Remove window sign.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

This section evaluates the subject property for potential eligibility for the California Register of Historical Resources (CRHR). According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if it meets one or more of the following criteria, which are modeled on National Register of Historic Places (NRHP) criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.
>
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance.

Review of the North Beach Survey materials indicates that this property was identified during a reconnaissance-level phase of the survey and classified as "3, Contributing – Altered." No other information was included about the subject property, and as of 2015, it does not appear to have been subject to intensive-level survey or evaluation. The 1980s North Beach Survey identified the building as altered, and primary-source and archival research carried out for this evaluation confirms this finding. Alterations include the in-filling of original wall openings (which appear to have been sized for automobiles) along the ground story on the east elevation, the removal and replacement of original fenestration, and the in-filling of second-story windows.

The property no longer retains most of the character-defining features associated with an automotive-related property and does not meet the registration requirements for automotive support structures as defined in the Van Ness Auto Row Historic Context Statement.[98] In addition, the property does not reflect an intact, representative commercial storefront building. The number and degree of modifications to the building over time have compromised its historic integrity and ability to convey its significance. Originally designed as an automotive garage, the property retains few character-defining features to convey this association. Based on site inspections and archival research, it also does not appear that the modifications made to the property over time have acquired significance in their own right. Due to a lack of significant associations and historic integrity, the property does not appear eligible for local, state, or federal designation under the applicable criteria, either individually or as a contributor to a historic district.

[98] William Kotsura. "Van Ness Auto Row Support Structures," 2010. Prepared for the City and County of San Francisco Planning Department.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations

- Unknown; awaiting further data
- Infill of large openings at southern end and upper levels of east elevation at unknown date (visual observation)
- Replacement/addition of storefront and upper-level windows at unknown date (AAU, Memo to SWCA 2/2/2016)
- Improvement of cut-corner aluminum store-front windows/entry at unknown date (AAU, Memo to SWCA 2/2/2016)

Post-AAU Alterations

- Metal plates installed over painted AAU signage between 2003 and 2011 (historic photographs)
- Installation of replica lighting circa 2007 (AAU, Memo to SWCA 2/2/2016)
- Installation of metal security gates at southernmost, ground-level doors circa 2005 (AAU, Memo to SWCA 2/2/2016)

SECONDARY ELEVATIONS

Pre-AAU Alterations

- Installation of roll-up door on north elevation at unknown date (AAU, Memo to SWCA 2/2/2016)
- Infill of window openings on the ground level of north elevation at unknown date (AAU, Memo to SWCA 2/2/2016)
- Seismic upgrades along the parapet at unknown date (AAU, Memo to SWCA 2/2/2016)
- Modern box light fixture installed above garage door on north elevation at unknown date (AAU, Memo to SWCA 2/2/2016)

INTERIORS

- Installation of fire sprinkler and life safety improvements in 2010 (Permit 201008189002)

460 TOWNSEND STREET (ES-33)

APN: 3785023

Construction Date: 1915

Architect/Builder/Designer (if known): H.H. Larsen

Previous Status: Category A

Previous CHR Status Code: 5D3

Date of Past Surveys/Evaluations: 1981; 1990; 1996; 2005; 2011

AAU Acquisition Date: 2009

Current CHR Status Code: 5D3

Applicable Criteria: A and C

Historical Resource? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

The low-rise building at 460 Townsend Street was constructed as a warehouse in 1915. The two-story rectangular building is set flush to the sidewalk. Built on a flat, rectangular lot, the building has a primary elevation facing Townsend Street and a secondary elevation facing the neighboring alley to the west. The building is constructed of brick and heavy timber, with exterior walls sheathed in smooth stucco, scored in areas to resemble masonry, and is capped with a flat roof with a parapet.

The symmetrical primary elevation is composed of four defined structural bays with a large rectangular opening on the ground floor and a pair of vinyl double-hung windows recessed in the wall plane above. Three of the large ground floor openings are filled with roll-up doors and the fourth has been in-filled with a single personnel door, concrete, and glass block. Above the second floor, a cornice line spans the length of the facade.

A secondary elevation is visible on the southwest facing the adjacent alley. There is a large original, wood double-door on the first floor and a metal stair case leads to the second story at the northern end of the elevation. The brick construction is visible on the elevation, although it has been painted to match the primary elevation. Original multi-pane, double-hung wood windows are evenly spaced horizontally along first and second story of the elevation.

Figure 258. 460 Townsend Street.

Figure 259. 460 Townsend Street, close up of the entry on the primary elevation.

Figure 260. 460 Townsend Street, northern perspective of the southwestern elevation.

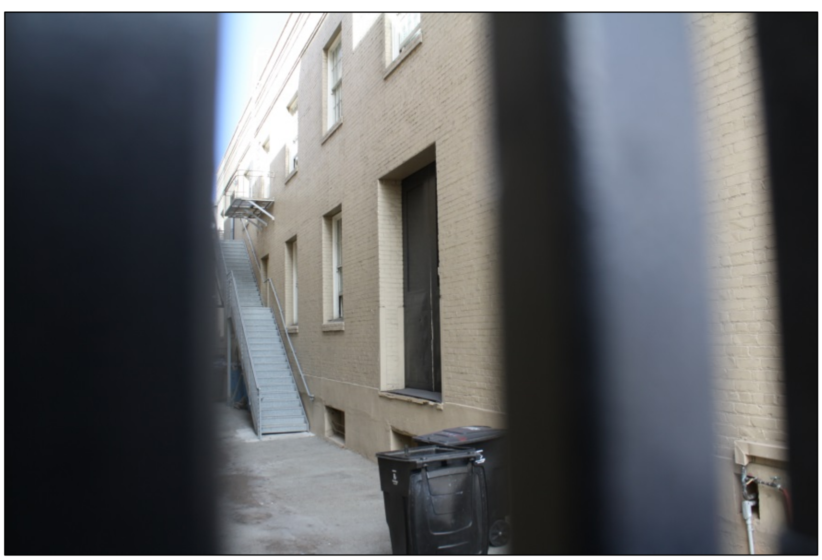


Figure 261. 460 Townsend Street, northwestern perspective of the southwestern elevation.

SITE HISTORY

The warehouse at 460 Townsend Street was built by the Moody Estate Company in 1915. The company was founded by Joseph L. Moody, who moved to San Francisco from Ohio in 1849 and became a developer of commercial real estate.[99] His estate, led by Frederick S. Moody, continued to manage his holdings, after his death in 1900, which included a block bounded by 5th Street, 6th Street, Brannan Street, and Townsend Street. In 1915, the estate H.H. Larsen and Company to develop the lot and build the warehouse.[100]

Although historic newspapers and city directories offer little information about the building's early tenants, the 2009 Bluxome and Townsend Warehouse Historic District Record identifies Marketers associated, Schmiedell & Co., Central Garden Supply, Pacific Electrical Supply Inc., and Lighting Systems Inc. as early occupants of the building. Building permits subsequently identify Richard Starsus as the owner by 1956 and Ares Properties and other individuals from 1972 through 1998, during which the time the building appears to have continuously operated as a warehouse. Work completed during this period included seismic upgrades, the installation of automatic fire sprinklers, and various interior improvements. From 2000 to 2001 Parachute Inc. occupied the building and is the last known tenant prior to AAU's acquisition of the building in 2009.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 262. 1981 photo of 460 Townsend Street. (Source: San Francisco Heritage)

[99] "Death of J.L.Moody," *San Francisco Call,* 21 April 1900.

[100] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department.

Figure 263. 2009 photo of 460 Townsend Street. (Source: 523 DPR Form for Bluxome and Townsend Warehouse District)

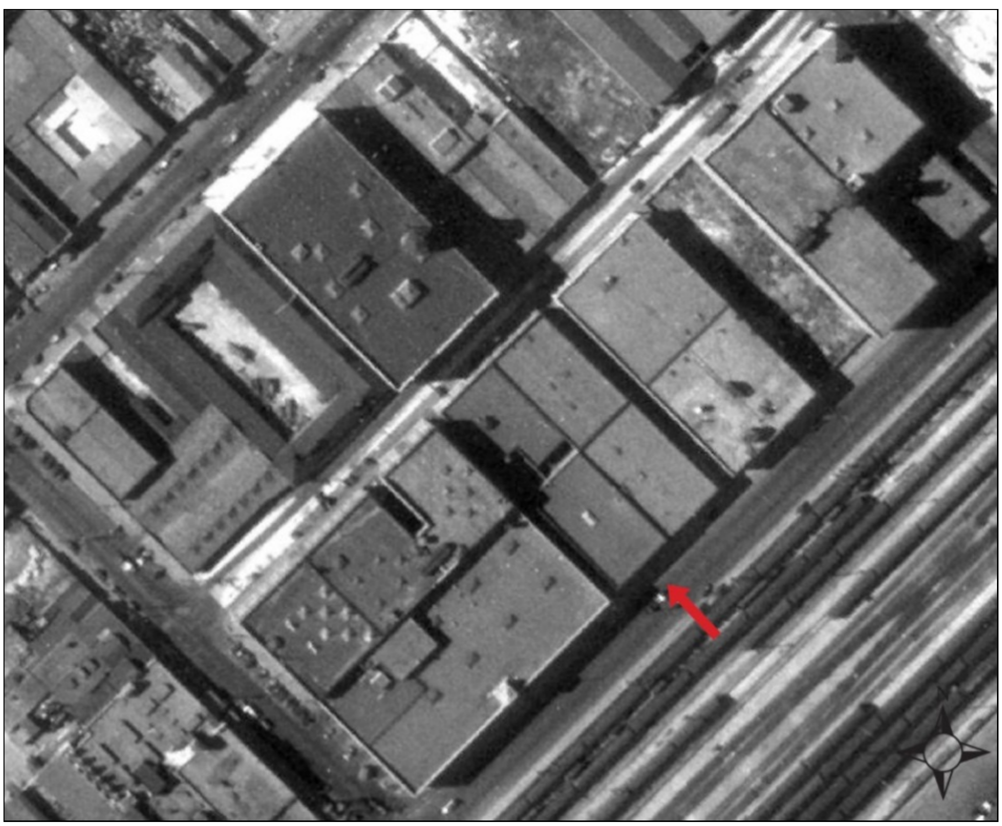


Figure 264. 1931 Aerial Photograph, 460 Townsend Street. (Source: Environmental Data Resources)

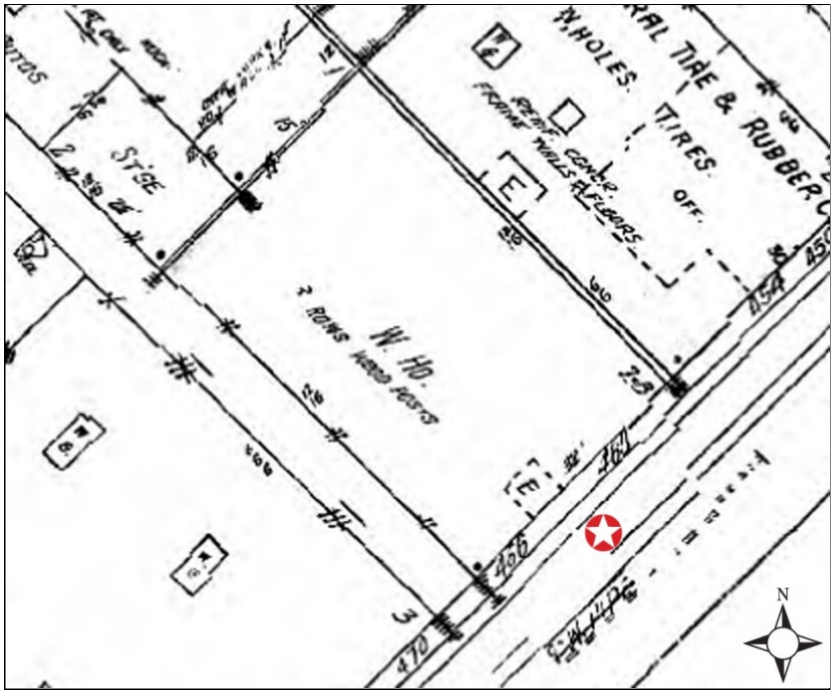


Figure 265. 1949 Sanborn Fire Insurance Map, 460 Townsend Street. (Source: Environmental Data Resources)

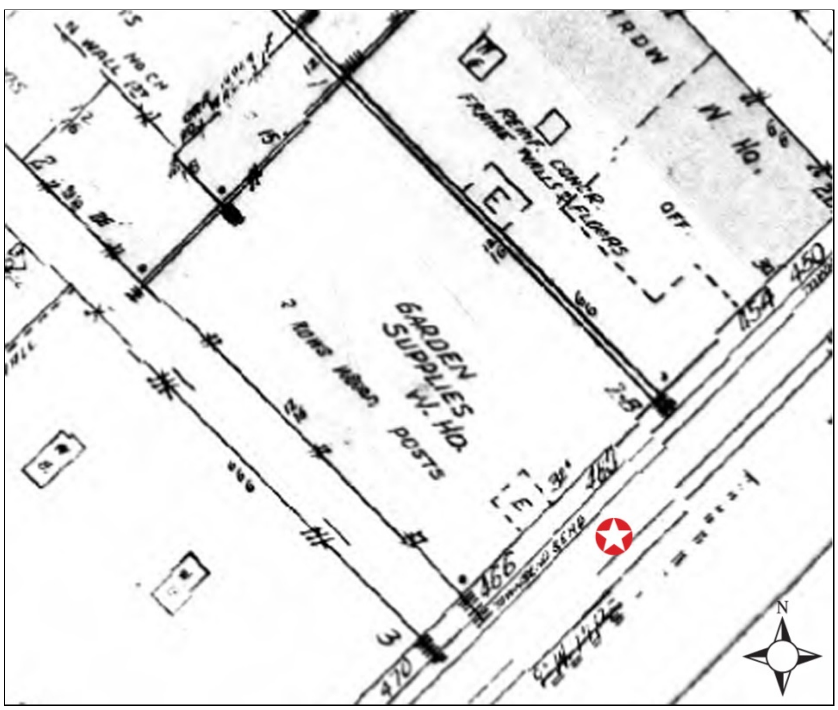


Figure 266. 1970 Sanborn Fire Insurance Map, 460 Townsend Street. (Source: Environmental Data Resources)

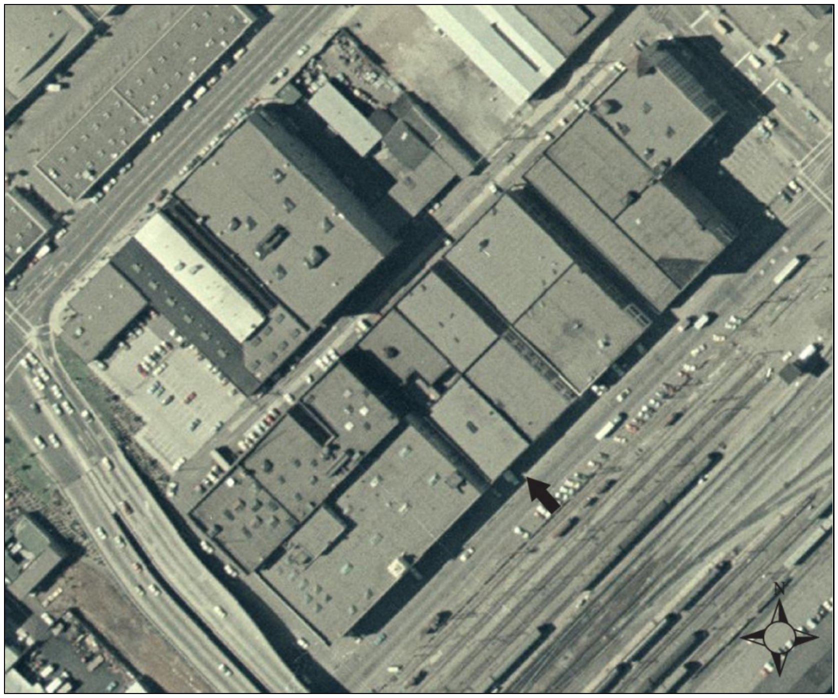


Figure 267. 1974 Aerial Photograph, 460 Townsend Street. (Source: Environmental Data Resources)

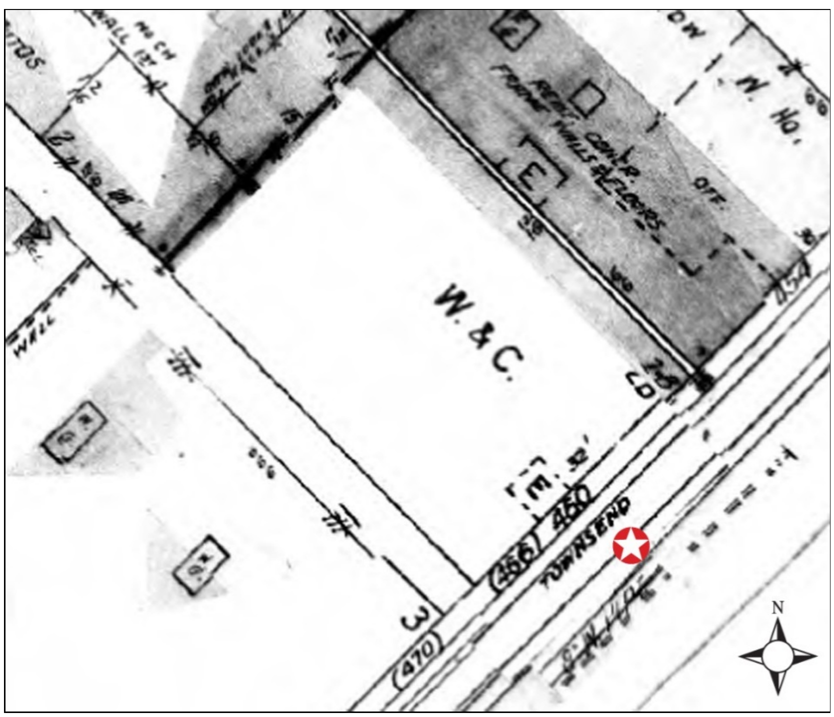


Figure 268. 1984 Sanborn Fire Insurance Map, 460 Townsend Street. (Source: Environmental Data Resources)

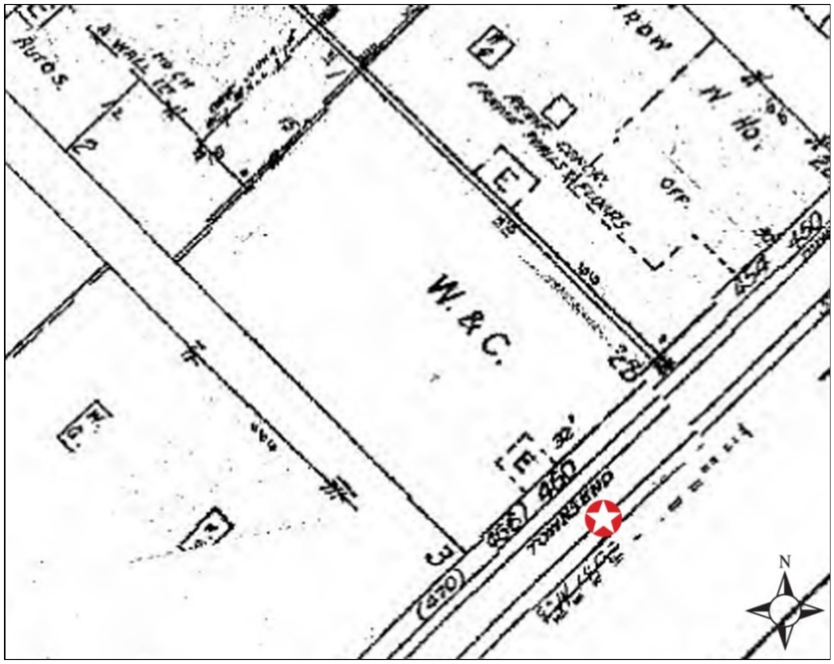


Figure 269. 1999 Sanborn Fire Insurance Map, 460 Townsend Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 460 TOWNSEND STREET / APN: 3785023

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 24, 1956 (Jan. 26, 1956)	182114	Richard Starsus		$1,600	Build offices and display room, 2nd floor as per plan (no structural changes).
Nov. 7, 1956 (Nov. 19, 1956)	191833 (171688)	Richard Starsus		$975	Install two offices (plywood partition), and one wash room.
Sept. 20, 1972	411642 (370092)	Ares Commercial Propertys		$4,500	Cover rough worn 2nd floor with ¾" plywood. Rebuild 2 toilet rooms on 1st and 2nd floors.
Aug. 24, 1979	7907396 (251887)	Ares Commercial Propertys	Wildman & Morris, John F. Grim	$10,000	Ramp and deck board.
Aug. 23, 1988	8812355 (594532)	Dick Harms		$19,800	Remove 3 existing roofs, leave one on ; apply 30 lbs. base and 2 ply #1V glass felt – 1 ply – 78 lbs. cap sheet.
Sept. 25, 1991 (Oct. 11, 1991)	9117929 (683653)	Robert Harms		$14,000	Parapet reinforcing.
July 28, 1995 (Jan. 24, 1996)	9511819 (786548)	Arcres Properties		$250,000	Seismic upgrade – to special procedures. AOA upgrade including path of travel and 4 new fully accessible bathrooms (ADA).
Mar. 20, 1996	9604607	Acres Properties		$1	Revision to Application #9511819. A frame to shotcrete job under construction.
Aug. 12, 1997 (Sept. 8, 1997)	9715311 (831196)	Tom Pataton		$38,000	Install new automatic fire sprinkler system, total 254 heads.
May 15, 1998	9808792 (849776)	Harm Properties		$700	Install Fire Alarm (1st floor only).
Aug. 3, 2000	200008036856 (917713)	Parachute Inc.		$12,000	Build out full height partition at all three levels.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 9, 2001	200101099448 (930009)	Parachute Inc.		$9,000	Saw cutting; excavation; backfilling of conduit trench work.
Mar. 22, 2001	200103224937			$125,000	Interior and exterior improvement. (Permit Withdrawn).
May 5, 2010 (Nov. 15, 2010)	201005051801 (1225797)	AAU		$135,000	Respond to NOV for Academy of Arts and bathroom. Additional life safety upgrades to address NOVs. Structural details for stairs under separate permits.
Jun. 1, 2010 (Dec. 8, 2010)	201006013580 (1227323)	460 Townsend Street LLC		$12,000	TI upgrade of existing Fire sprinkler system. Add 29 upright sprinklers, add 2 pendent sprinklers and delete 2 uprights.
Dec. 7, 2010 (Dec. 20, 2010)	201012076214 (1228064)	AAU		$120,000	Installation of new Fire Alarm system.
Jan. 4, 2011	201101047833	AAU		$1	To correct permit characteristics for App #201005051801 and 201006013580.
Mar. 30, 2011	201103303105	AAU		$1	Renew PA #9715311 to obtain final inspection.
Mar. 30, 2011	201103303107	AAU		$1	Renew PA #9808792 to obtain final inspection.
Mar. 30, 2011	201103303108	AAU		$1	Renew PA #2000-0803-6856 to obtain final inspection.
Apr. 7, 2011	201104073641	AAU		$1	Revision to PA #2010-0505-1801 to provide structural details for new stair.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

460 Townsend Street does not appear individually eligible for the CRHR; it is a relatively modest industrial warehouse property and one of a number of similar properties in the neighborhood.

In terms of eligibility as a contributor to a historic district, however, 460 Townsend Street was previously found to be a contributor to a locally eligible historic district. At the local level, the property derives its significance as part of a cohesive grouping of related industrial/warehouse buildings in the area. A district-wide CRHR evaluation was beyond the present scope of work and, at this time, the property does not appear eligible for the CRHR either individually or as a contributor to an eligible historic district. Subsequent survey work should consider the broader historic district and whether it meets the criteria of the CRHR.

460 Townsend Street has been altered though the replacement and infill of original doors and windows on the main (south) elevation, however it still exhibits many of the features that convey the significance of the district, including scale, massing, and fenestration pattern. As such the building, and the district as a whole, retains sufficient historic integrity. The property has therefore been assigned a CHR Status Code of 5D3 and is considered a historical resource for the purposes of CEQA.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: two stories and rectangular plan
- Siting: flush with sidewalk
- Four defined bays; each with a large roll-up door opening on the ground floor and a pair of double-hung windows above
- Original multi-pane double-hung wood windows and wood door on west elevation
- Stucco wall surface scored to look like masonry, with brick construction, on primary southeast elevation
- Cornice with parapet on top

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Stucco application and in-fill of northern most bay with glass block
- Replacement of upper-floor windows between 1981 and 1986 (historic photographs)
- Replacement of metal roll-up doors (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Security cameras added (visual observation and historic photographs)

INTERIORS

- Full height partitions installed in 2011 (Permit 201103303108)
- Installation of fire alarms and sprinklers in 2011 (Permit 201103303107)
- Bathroom and life safety upgrades in 2010 (Permit 201005051801)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

460 TOWNSEND STREET (ES-33)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Cameras	Post-2009	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not obscure or damage distinctive character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. The installation of the security cameras resulted in minimal damage to historic wall materials and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in* *place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable top this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

RECOMMENDATIONS

The project complies with the SOIS; no design modifications are recommended at this time.

466 TOWNSEND STREET (ES-34)

APN: 3785005

Construction Date: 1920

Architect/Builder/Designer (if known): Unknown

Previous Status: Category A

Previous CHR Status Code: 2S2; 5D3

Date of Past Surveys/Evaluations: 1978; 1996; 2011

AAU Acquisition Date: 2005

Current CHR Status Code: 2S2, 5D3

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

The low-rise building at 466 Townsend Street was constructed as a warehouse in 1920. The three-story rectangular building is set flush to the sidewalk and built on a flat, rectangular lot. The primary elevation faces Townsend Street, and secondary elevations faces the adjacent alley and 6th Street.

The overall character, massing, and reinforced concrete construction of the property are characteristic of post-1906 earthquake and fire industrial reconstruction in the South of Market. The building displays a symmetrical design composition, with design details provided in horizontal and vertical banding. Smooth stucco sheathes the exterior walls. The building is capped with a flat roof with a parapet and a shallow, unadorned overhanging eaves.

Centered on the façade, the main entry consists of aluminum glass doors with sidelights and a transom, sheltered beneath a metal canopy supported on knee-braces. Large roll-up doors are located on eastern and western end of the elevation. Former large openings on the northern end of the elevation have been in-filled. Vertical and horizontal bands frame the stacked windows, creating bays and a distinctive fenestration pattern within the bays. Original windows have been replaced with multi-light fixed windows or in-filled with concrete and scored to replicate the multi-light window pattern. Centered above the main entry on the roof is an extending tower with a flag pole.

Figure 270. 466 Townsend Street.

Figure 271. 466 Townsend Street, close up of the main entry on the primary elevation.

Figure 272. 466 Townsend Street, close up of the windows and fenestration pattern on the primary elevation.

Figure 273. 466 Townsend Street, close up of the roll-doors and in fill on the northern half of the primary elevation.

The secondary elevations continue the fenestration and bay pattern and use of windows and scored concrete of the facade. Along the southwest elevation, on the first story of each bay, are large rectangular vents and a roll-up door. A small portion of the northwestern elevation is visible along Sixth Street. Although there is no fenestration, the masonry construction is visible. On the northeastern elevation, the windows have been in-filled.

Figure 274. 466 Townsend Street, southeastern perspective of the southwestern and northwestern elevations.

SITE HISTORY

Constructed in 1920, the building at 466 Townsend Street has provided warehouse space for a variety of tenants since its construction. Historic newspapers and city directories offer limited information on its early tenants. From circa 1945 through 1958, the building was occupied by wholesale grocers, United Grocers Ltd, followed by house furnishing manufacturer Ellery of California, Jencraft Manufacturing Company, and Western Curtain Manufacturing Company in 1968. [101]

By 1978, the building was occupied by Frontier Management Corp., who employed Roger Benson to install movable partitions on the interior. Roll-up doors on the ground levels were subsequently replaced by Bill Wrens Towing in 1980, and by 1987 the building was owned by San Francisco Partners. Building permits indicate that the building was occupied by multiple tenants in 2000, including Markley Steams Partner, Firstworld Communications, and Adelphia Business Solutions. It was during this time, and prior to AAU's acquisition of the building in 2005, that the upper-level windows were infilled as part of seismic upgrades to the building.

[101] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 275. 2005 photograph of 466 Townsend Street. (Source: Academy of Art University)

Figure 276. 2005 photograph of 466 Townsend Street. Source: (Source: 523 DPR Form for Bluxome and Townsend Warehouse District)

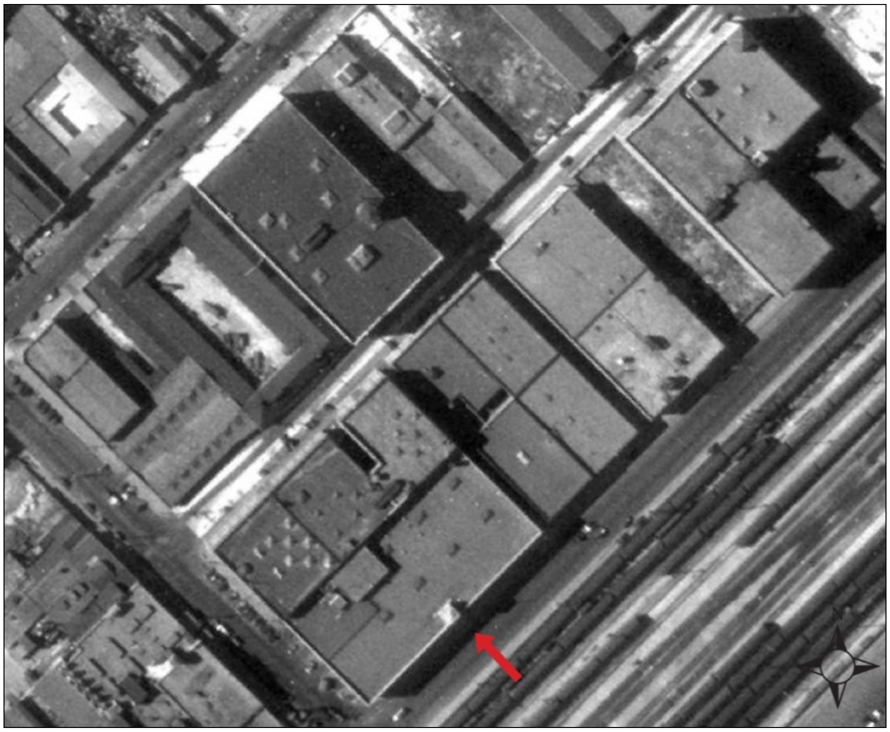


Figure 277. 1931 Aerial Photograph, 466 Townsend Street. (Source: Environmental Data Resources)

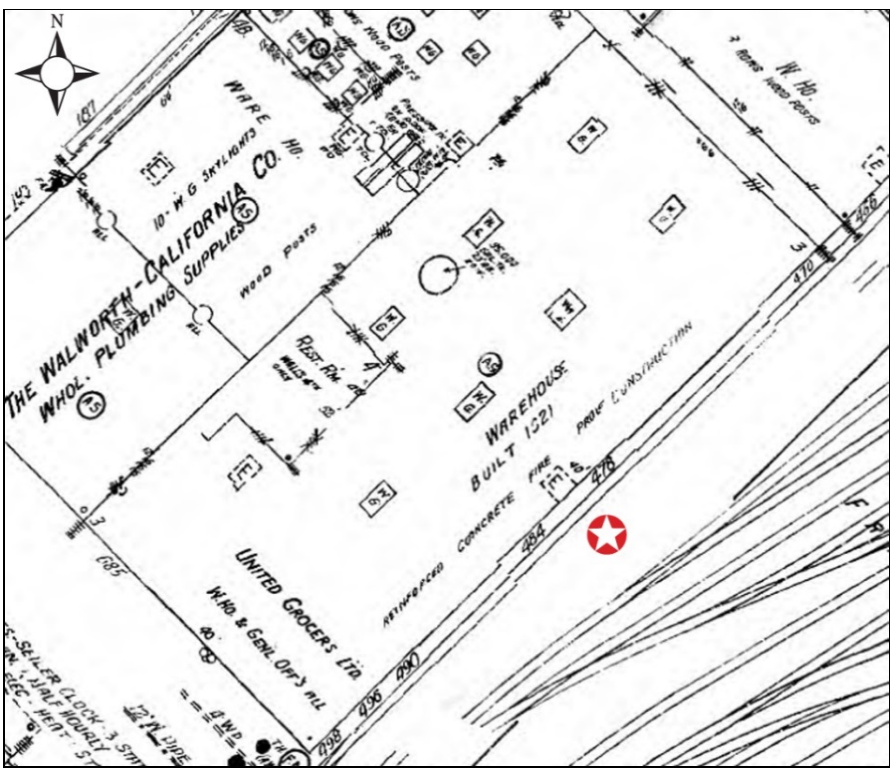


Figure 278. 1949 Sanborn Fire Insurance Map, 466 Townsend Street. (Source: Environmental Data Resources)

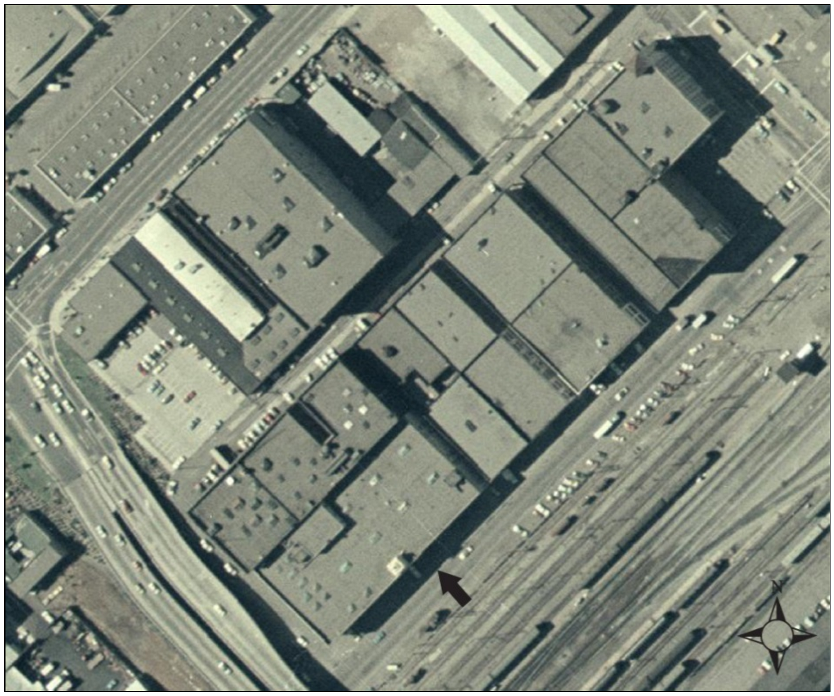


Figure 279. 1974 Aerial Photograph, 466 Townsend Street. (Source: Environmental Data Resources)

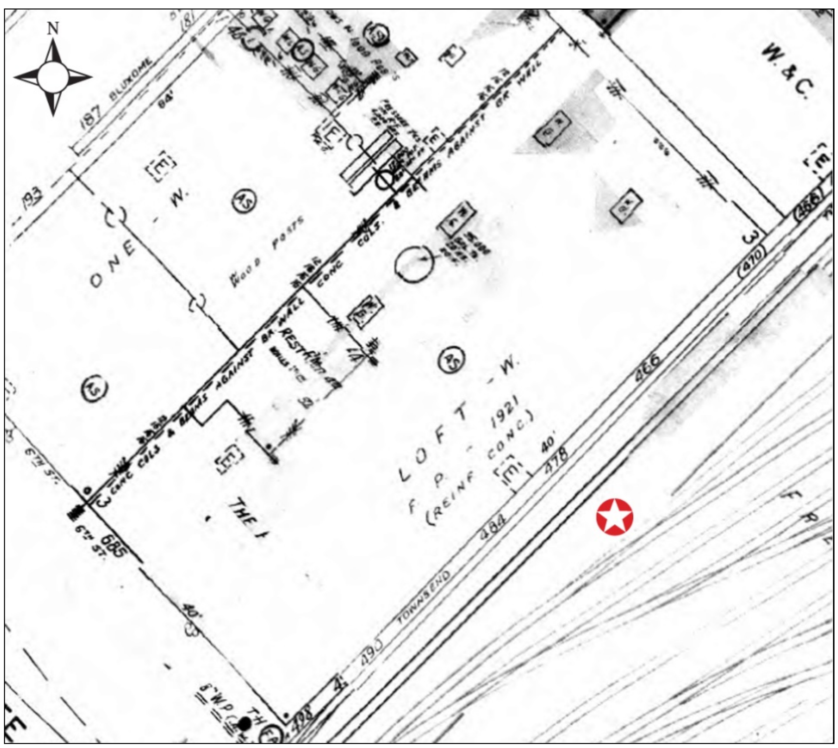


Figure 280. 1984 Sanborn Fire Insurance Map, 466 Townsend Street. (Source: Environmental Data Resources)

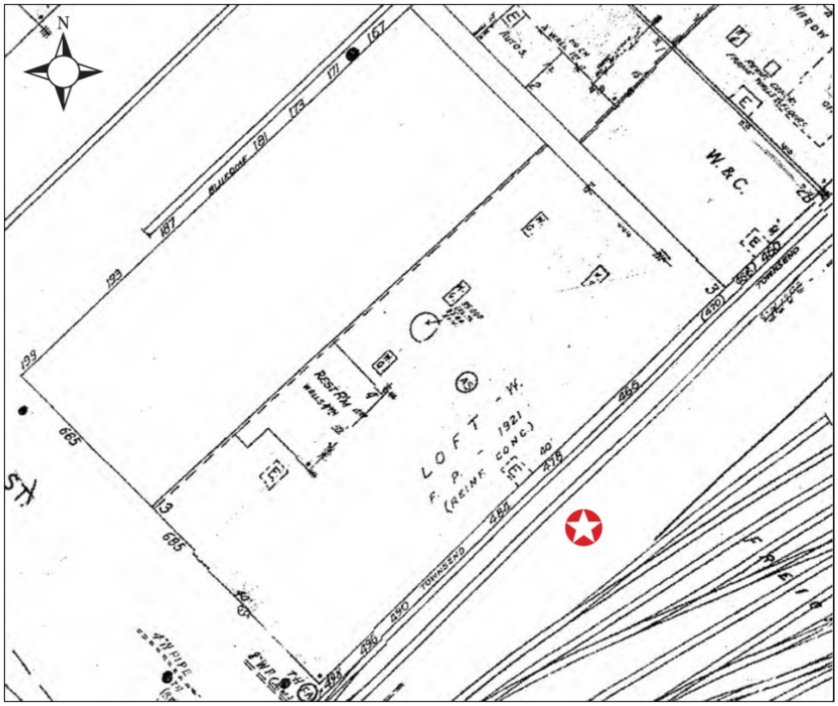


Figure 281. 1999 Sanborn Fire Insurance Map, 466 Townsend Street. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 466 TOWNSEND STREET / APN: 3785005

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 25, 1978 (Dec. 4, 1978)	7811430 (443092)	Frontier Management Corp.	Roger Benson	$16,000	Installation of movable partitions 8 ft. height.
Dec. 1, 1980 (Dec. 15, 1980)	8010556 (466752)	Bill Wrens Towing		$2,508	To remove existing steel-roll-up door, then to furnish and install (1) new steel roll-up door 18’ x 13’-7” operated by an existing operator.
Sept. 11, 1987	8713118 (580740)	San Francisco Partners	Ward Thomas	$10,000	Removal of existing non-bearing office partitions - for details see attached plan. Floor fully fire-sprinklered.
Dec. 18, 1987 (Jan. 5, 1988)	8717839 (581700)	San Francisco Partners	Ward Thomas AIA	$2,000	Revisions to demolition plan. Sheet D Dated 9/8/87 application #871-3118. Removal of additional non-bearing partitions shown as revisions 1 on Sheet D, dated 12/18/1987.
Jan. 5, 1988 (Jan. 28, 1988)	8800125	San Francisco Partners	Ward Thomas AIA	$8,000	New entrance and exit near the corner of Sixth & Townsend streets. Provide awning, lobby entrance & exit. Change 2 door swings for exit. Office for self-storage lockers. Light fixtures & Exit signs.
Nov. 13, 1989	8921882 (627683)	San Francisco Partners; Bridge Management Inc., General Partner Russell J. Bilinski		$39,600	Replacement of storage locker facilities which had to be removed due to damage.
Oct. 20, 1999	9922283 (892558)	Markley Stearns	RPR Architects	$200,000	Demolition for tenant improvement. ADA access upgrades.
Nov. 14, 1989	8922077 (627923)	San Francisco Partners; Bridge Management Inc., General Partner Russell J. Bilinski		$170,000	Installation of in-fill back wall on subject property to replace damaged common wall located on adjacent property.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 3, 1999 (Mar. 13, 2000)	9923550 (904445)	Markley Stearns Partner	RPR Architects	$200,000	Common area upgrade for three-story storage facility. Passenger elevator, stairs, corridors, access ability, and elec./mech. (No increase in office space).
Feb. 10, 2000 (Apr. 21, 2000)	200002101494 (908137)	Markley Stearns	Brandolo Johnston AIA	$1,500,000	Structural seismic upgrades and exterior window in-fill under Application #9923550.
Feb. 15, 2000 (May 23, 2000)	200002162050 (91195)	Firstworld Communications (leesee)	Robert Taylor	$55,000	Structural – beef up 3rd floor for batteries.
Feb. 15, 2000 (Mar. 28, 2000)	200002162055 (905790)	Firstworld Communications (leesee)	Robert Taylor	$300,000	Construct walls and partitions. Install new electrical and mechanical systems to create a climate controlled area for computer storage equipment.
Mar. 29, 2000 (Apr. 10, 2000)	200003295760 (907174)	Firstworld Communications (leesee)	Robert Taylor	$500,000	Construct walls and partitions. Install new electrical and mechanical systems for computer storage equipment.
May 8, 2000 (July 19, 2000)	200005089386 (916335)	Adelphia (leesee)	RPR Architects	$500,000	Construction on 1st floor of equipment room. DC power and offices. Plumbing & electrical.
June 2, 2000 (Aug. 15, 2000)	200006021653 (918744)	Adelphia Business Solutions	Intelli-Tech	$166,000	Install FM200/Pre-Action fire suppression system.
June 21, 2000 (Sept. 1, 2000)	200006213266 (920411)	Adelphia		$30,000	Two new pre action zones and one wet system. 282 new uprights and 29 new pendants. First floor.
July 21, 2000 (Oct. 4, 2000)	200007215759 (923110)	Markley Stearns Partner		$51,300	Fire sprinkler core upgrades entire building. New underground.
Aug. 28, 2000	200008289089 (919974)	Markley Stearns Partner		$15,529	Life safety system for 466 Townsend.
Feb. 15, 2001 (Mar. 24, 2001)	200102152188 (935567)	Ares Commercial Properties		$650,000	Demo 2nd and 3rd floors. Raise 2nd and 3rd floor height. (No increase of height of

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
					outside of the building. No modification of exterior façade).
Apr. 13, 2001 (Apr. 26, 2000)	200104136750 (938036)	Markley Stearns Partner		$1	Revisions to Application #200008289089, Permit #919974. Fire alarm plan only.
May 15, 2001 (May 19, 2001)	200105159136 (939930)	466 Townsend Street, L.L.C.		$1	To clarify building use from Storage/Office-Data to Telecom Data Center.
Apr. 23, 2001 (June 18, 2001)	200104237408 (942019)	Markley Stearns Partner		$1	Revision to PA #200102152188S; remove interior walls, floor ceilings and roof. Provide bracing for walls.
June 14, 2001 (July 11, 2001)	200106141578 (943680)	466 Townsend Street, L.L.C.		$54,400	New Pre-Action fire suppression system on 2nd floor.
July 5, 2001 (Aug. 21, 2001)	200107053024 (946753)	466 Townsend Street, L.L.C.		$13,500	The scope of work for this project requires that Intelli-Tech Design, and install a fire pre-action detection & control system. (No increase in office space).
Oct. 4, 2001	200110049981 (950125)	Markley Stearns Partner		$2,000	Addition of one (1) smoke detector in elevator machine room.
June 28, 2002	200206280282 (970262)	Markley Stearns Partner		$1	Renew #200104136750 for final inspection.
Dec. 19, 2002 (Dec. 31, 2002)	200212193932 (989190)	Markley Stearns Partner		$100,000	Raised floor at partial 2nd floor, path of travel front entry.
Dec. 19, 2002 (Jan. 31, 2003)	200212193944 (986267)	Markley Stearns Partner		$20,000	Construct temporary ADA compliant entry ramp, while permanent ramp is under review with board of supervisors.
Sept. 1, 2005	200509011875 (1065557)	AAU		$80,000	Work to the bathroom on the 3rd floor. Added restroom at 3rd floor.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 27, 2005	200510276676	Stephens Institute Academy of Arts		$25,000	Additions to the existing Fire Alarm system due to building being remodeled by Academy of Arts.
Feb. 9, 2006	200602094189 (1078832)	AAU		$2,500	Remove two (2) existing pre-action system equipment and convert to wet fire systems.
May 11, 2010 (July 26, 2010)	201005102107 (1217347)	AAU	Doug Tom	$750,000	Respond to N.O.V. issued 3/23/2010. Obtain approval for tenant improvements done without permit. (No change of use under this permit; for Life Safety upgrade only).
July 23, 2010	201006023654 (1217234)	AAU		$43,800	2nd and 3rd floors – T.I. upgrade of existing fire sprinkler system. Relocate 33 uprights & add 78 uprights.
June 3, 2010 (June 10, 2010)	201006033727 (1213912)	466 Townsend, LLC/AAU		$500	Removal of two (2) logos on roll up doors.
Aug. 13, 2010 (Sept. 16, 2010)	201008138761 (1221444)	AAU		$40,000	Adding 1 power supply, 2 monitoring modules, 53 horn/strobes & 7 strobes to the existing Fire Alarm system. Voluntary Fire Alarm system only for existing commercial only.
Jan. 24, 2013 (Mar. 4, 2013)	201301248669 (1287695)	AAU		$500	Remove north facing painted wall sign.
June 10, 2015	201506108662			$1	To comply with complaint #200564496 to change use from Office to post-secondary Education institution.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

In 1996, 466 Townsend Street was formally determined eligible for listing in the National Register of Historic Places (NRHP), through the Section 106 review process; it was therefore subsequently eligible for automatic listing in the California Register of Historical Resources (CRHR).[102] It is considered a historical resource for the purposes of CEQA.

The property was subsequently identified in 2009 as a contributor to the Bluxome and Townsend Warehouse District.[103] Bound by Bluxome, Townsend, 5th, and 6th Streets, the historic district contains a cohesive group of nine warehouse constructed between 1912 and 1936, which feature similar scale, materials, and architectural styles, and represent the reconstruction of industrial properties in the South of Market area in the years after the 1906 Earthquake. Collectively, these resources appear to be directly associated with a series of events that are significant within the history of San Francisco, and which appear eligible for local designation as a historic district under National Register Criterion A. Further, the historic district represents a concentration of properties that possess the distinctive characteristic of a type, period, or method of construction and appears eligible for local designation under National Register Criterion C.

Since 466 Townsend Street was recorded in 1996, but prior to AAU acquisition in 2005, many of the buildings windows were infilled. However, the building still retains many of the features that convey its significance as post-1906 Earthquake Reconstruction period warehouse, including its scale, massing, fenestration pattern, and limited architectural detailing. The building, and the district as a whole, retains sufficient historic integrity and there is no information to suggest that it should no longer be listed in the CRHR. For this reason, 466 Townsend Street is still considered a historical resource for the purposes of CEQA.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: mid-rise, rectangular plan
- Set flush with sidewalk
- Flat roof with parapet and shallow overhanging eaves
- Symmetrical, rhythmic bay and fenestration pattern
- Extending tower on roof over main entry
- Projecting course spanning building (horizontal)
- Banding around window bays (vertical)
- Smooth stucco sheathing on exterior walls

[102] San Francisco Planning Department, Data for 466 Townsend Street, San Francisco Property Information Map.

[103] Christina Dikas, California Department of Parks and Recreation (DPR) 523 Series Form for the Bluxome and Townsend Warehouse Historic District, June 2009. On file with the San Francisco Planning Department

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Replacement of eastern steel-roll up door in 1980 (Permit 8010556)
- Lobby entrance doors replaced in 1988 (Permit 8800125)
- Large awning above central lobby entrance installed in 1988 (Permit 8800125)
- Exterior window in-fill completed in 2000 (Permit 200002162050)
- Large ground-level openings infilled (AAU, Memo to SWCA, 2/2/2016)
- Light fixtures have along the 1st floor (AAU, Memo to SWCA, 2/2/2016)
- Upper-level windows replaced (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Installation of metal vent hood on infilled entry on main (south) elevation (historic photographs and visual observation)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Exterior window in-fill on west elevation completed in 2000 (Permit 200002162050)
- Window openings on east elevation in-filled with concrete (AAU, Memo to SWCA, 2/2/2016)
- Ground-level openings in-filled with concrete and vents on west elevation (AAU, Memo to SWCA, 2/2/2016)
- Upper-level windows on west elevation replaced (AAU, Memo to SWCA, 2/2/2016)

INTERIORS

- Fire protection upgrades in 2010 (Permit 201008138761)
- New air handler and ductwork installed in 2011 (Permit 201108102145)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

466 TOWNSEND STREET (ES-34)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Installation of Vent Hood	Post-2005	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Installation of Vent Hood: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 2. The character and contours of the original large wall openings spanning the ground story of the building remain discernible (though the openings have been in-filled with stucco). The stucco infill, completed prior to 2005, is non-original and not considered character defining. The metal vent hood is attached to noncontributing materials and does not obscure or negatively affect character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 3. Given its utilitarian appearance, the vent hood does not create a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Installation of Vent Hood: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 5. The character of the original large wall openings spanning the ground story of the building remain discernible (though the openings have been in-filled with stucco). The stucco infill, completed prior to 2005, is non-original and not considered character defining. The metal vent hood is attached to noncontributing materials and does not unduly obscure character-defining features or materials.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Installation of Vent Hood: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Installation of Vent Hood: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Installation of Vent Hood: Rehabilitation Standard No. 8 is not applicable top this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 9. The vent hood is generally compatible in scale and appearance to the building and does not obscure character-defining features that convey the significance of the property.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Installation of Vent Hood: The project complies with Rehabilitation Standard No. 10. The vent hood is generally compatible in scale and appearance, does not obscure character-defining features, and its removal would not result in any impairment to the building.

RECOMMENDATIONS

The project complies with the SOIS; no design modifications are recommended at this time.

1849 VAN NESS AVENUE (ES-8)

APN: 0618001

Construction Date: 1920

Architect/Builder/Designer: Howard R. Schulze

Previous Status: Category A

Previous CHR Status Code: 3CS

Date of Past Surveys/Evaluations: 2010

AAU Acquisition Date: 1998

Current CHR Status Code: 3CS

Applicable Criteria: 1, 2 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? Yes

BUILDING AND PROPERTY DESCRIPTION

The former automotive showroom at 1849 Van Ness Avenue was constructed in 1920 with a large addition to the south completed in 1926, resulting in its current rectangular plan. It is set flush to the sidewalk on a rectangular, sloped lot, with a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties and Washington Street. The four-story structure is capped with a flat roof with a profiling cornice.

On the primary elevation, the 1920 portion is composed of five bays of equal width while the 1926 addition is composed of three bays with a wider middle bay. The main entry is a three-part aluminum framed glass folding door with transoms above. Large storefront windows line the first story with a smooth, unadorned frieze and cornice above separating the first story from the upper stories. An LED band sign and flag poles have been added just below the cornice line. Nonoriginal stacked multi-light windows on the upper stories are divided by vertical piers and paneled spandrels.

Figure 282. 1849 Van Ness Avenue.

Figure 283. 1849 Van Ness Avenue, close up of the main entry on the primary elevation.

Figure 284. 1849 Van Ness Avenue, close up of the first story on the primary elevation.

Figure 285. 1849 Van Ness Avenue, close up of the windows on the primary elevation.

Secondary elevations are visible on the north, south, and west elevations. The north elevation continues the fenestration pattern established on the primary elevation. The first story has three smaller storefront windows beginning the eastern corner. Four long rectangular display windows flank a recessed aluminum framed glass double-door with sidelights and a transom. A double-door entry, accessed via a ramp with a security gate, and rectangular evenly spaced windows on the upper stories are extant on the west elevation.

The south elevation has minimal fenestration of the eastern half and large evenly spaced rectangular windows on the western half. Aluminum and metal multi-light with awning windows and fixed glass are present on the secondary elevations in a variety of configurations.

Figure 286. 1849 Van Ness Avenue, southeastern perspective of the north elevation.

Figure 287. 1849 Van Ness Avenue, southeastern perspective of the north and west elevations.

Figure 288. 1849 Van Ness Avenue, southern perspective the entry of the west elevation.

Figure 289. 1849 Van Ness Avenue, northwestern perspective of the southern elevation.

The main entry leads to a large open showroom with tall ceilings. Tile and terrazzo floors differentiate the original portion from the 1926 addition. A nonoriginal wood staircase in the addition leads to an open loft overlooking the showroom. A car ramp is located past the staircase and provides access to the rear showroom, which is differentiated with concrete floors and a lower ceiling. The upper stories have been altered to various degrees, largely the result of partitions added to create classrooms, workshops, and offices. Original extant features a wood truss roof system on the top floor of the south wing, interior auto ramps and elevator, and concrete floors with painted direction signs.

Figure 290. Interior showroom of subject property.

Figure 291. Interior showroom and stair to loft of subject property.

Figure 292. Interior showroom of subject property.

SITE HISTORY

1849 Van Ness Avenue was constructed in two phases. The original northern portion of the building was designed by Howard R. Schulze for L.D. Allen and developed in 1920-1921. Prior to his work on 1849 Van Ness Avenue, Schulze also designed another auto-related property at 1133 Post Street (extant) for Allen and Company in 1917. Outside of these commissions and a small number of residences in Sea Cliff for Harry B. Allen, little is known about Schulze. The structural engineers and contractor for the initial phase was the firm of MacDonald and Kahn, who had offices in San Francisco and Los Angeles, and became known for specializing in reinforced concrete. Their expertise eventually led the firm to be chose as one of six companies to build the Hoover Dam on the Colorado River between 1931 and 1935.[104]

Pacific Nash Motor Company, which was the northern California distributor of Nash automobiles, was the first to occupy the building.[105] In 1926 a fifty-foot addition was constructed to the south to house the LaFayette luxury brand, owned largely by Nash.[106] Pacific Nash Motor Company occupied the building until 1936, at which time the building was sold to James E. French, owner of the J.E. French Company and distributor of Dodge and Plymouth automobiles in San Francisco.

French (1876-1965) began his automobile career while managing the Pennsylvania Rubber Company's tire stores in San Francisco.[107] When the Dodge Brothers began to manufacture automobiles, French became the brand's first district manager in San Francisco and continued in the position of director of distribution by 1921. In 1922 he resigned to become a Dodge Brothers' distributer.[108] From 1922-1936 the J.E. French Company operated at 910 Polk Street before the dealership moved to 1849 Van Ness Avenue in 1936. At the same time French expanded his showroom to sell Plymouth automobiles. During French's occupation

---

[104] William Kotsura, California Department of Parks and Recreation (DPR) 523 Series Form for 1839-1851 Van Ness Avenue, February 2009. On file with the San Francisco Planning Department

[105] "Auto Company to Build Home," *San Francisco Chronicle*, 12 June 1920.

[106] Kotsura 2009

[107] Kotsura 2009

[108] *Automobile Topics*, February 18- May 13, 1922, vol. 65.

of the building, he completed a number of improvement projects including the alteration of the ground-level storefront openings during the 1950s.

J.E. French Company eventually vacated the building in 1960 and by 1964, three different lessees had applied for building permits, including AAA Leasing Corp., Copenhagen House of Danish Furniture, and National Recreation Center. Historic photographs indicate that Copenhagen House of Danish Furniture occupied the ground level of the building through at least the 1980s, during which time they may have altered the showroom. Available information failed to identify the occupants of the building prior to AAU's acquisition of the property in 1998.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 293. 1921 photo of 1849 Van Ness Avenue. (Source: *Architect and Engineer*, January 1921)

Figure 294. 1950s photo of 1849 Van Ness Avenue. (Source: San Francisco Public Library)

Figure 295. 1998 photo of 1849 Van Ness Avenue. (Source: Academy of Art University)

Figure 296. 2011 photo of 1849 Van Ness Avenue. (Source: Atkins)

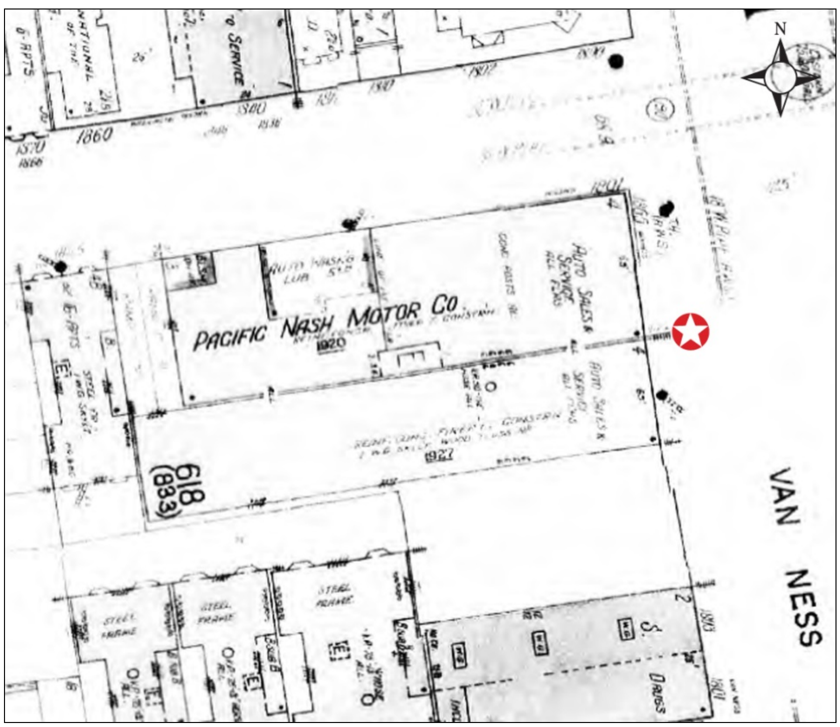


Figure 297. 1929 Sanborn Fire Insurance Map, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

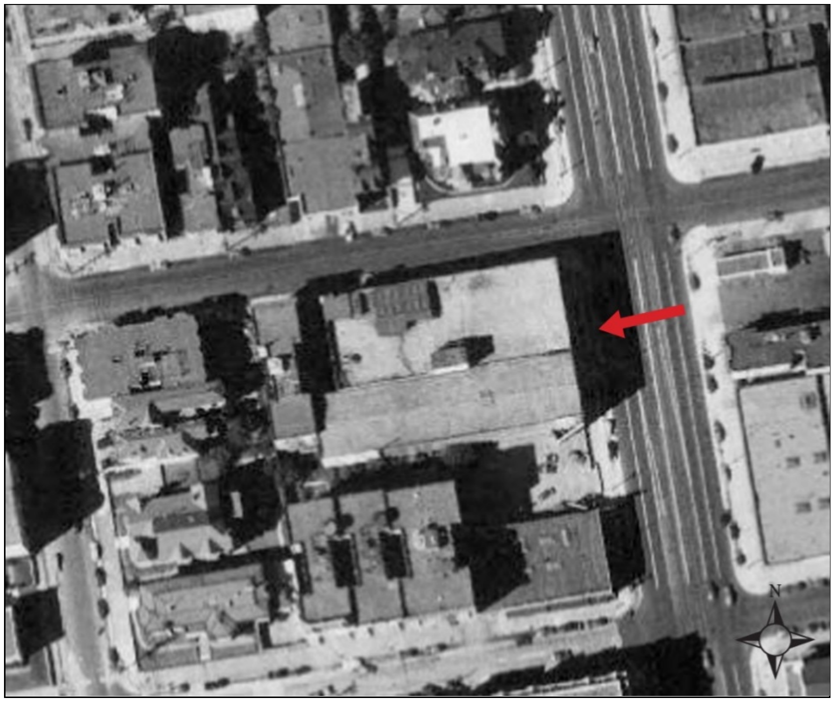


Figure 298. 1938 Aerial Photograph, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

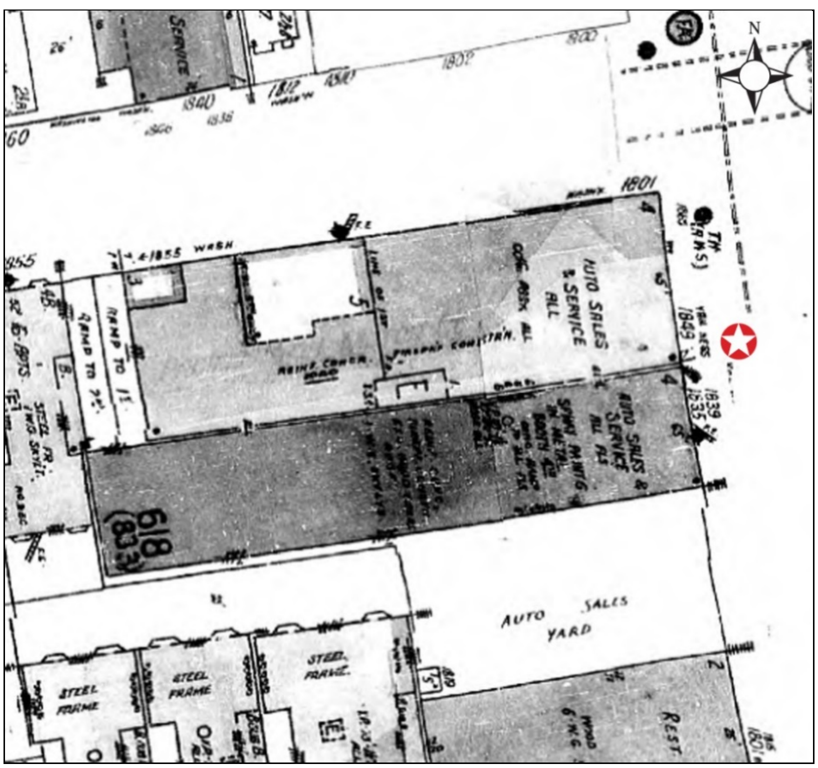


Figure 299. 1950 Sanborn Fire Insurance Map, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

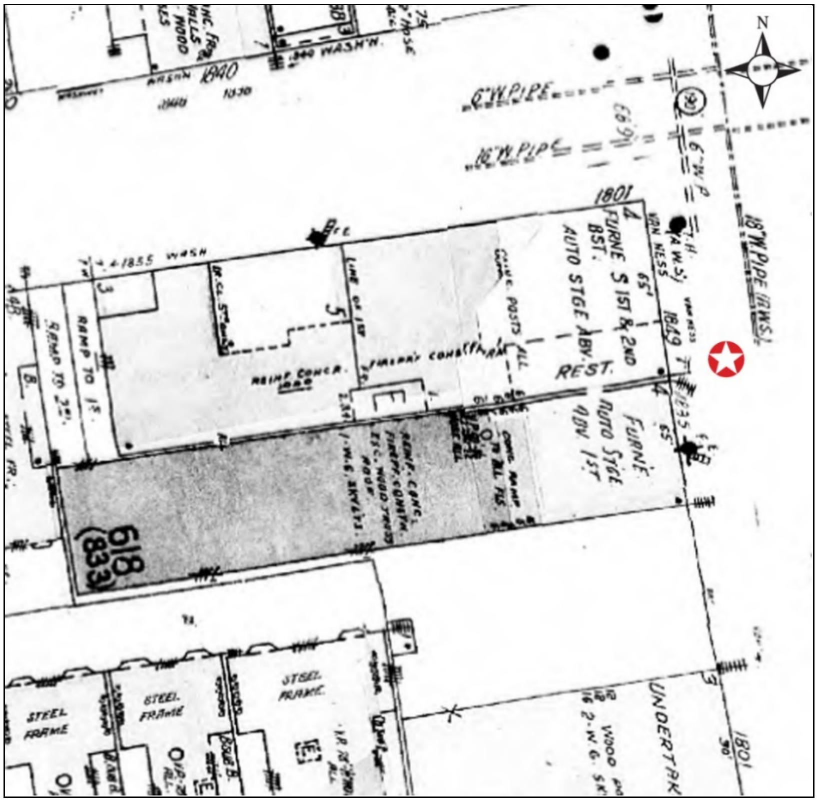


Figure 300. 1968 Sanborn Fire Insurance Map, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 301. 1974 Aerial Photograph, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

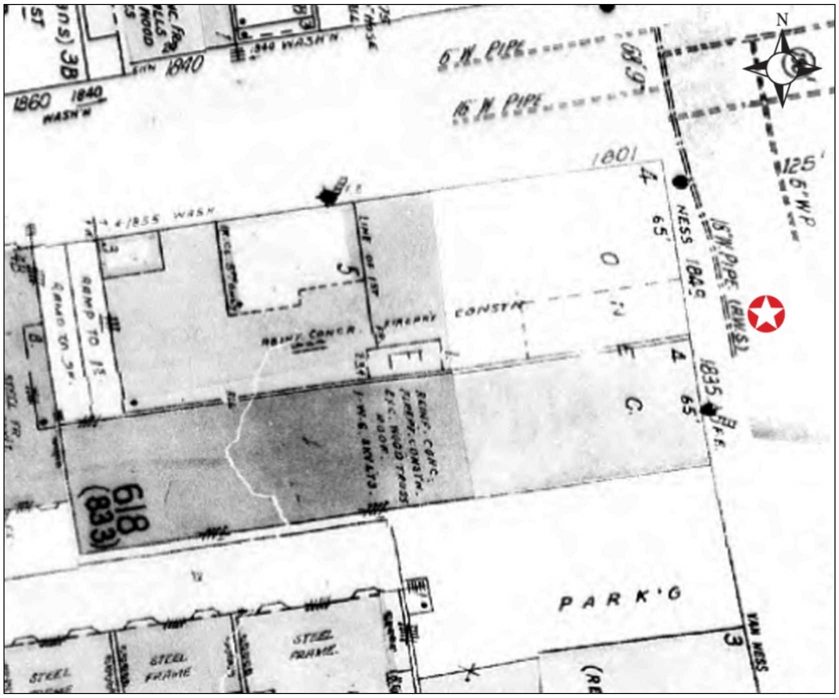


Figure 302. 1986 Sanborn Fire Insurance Map, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

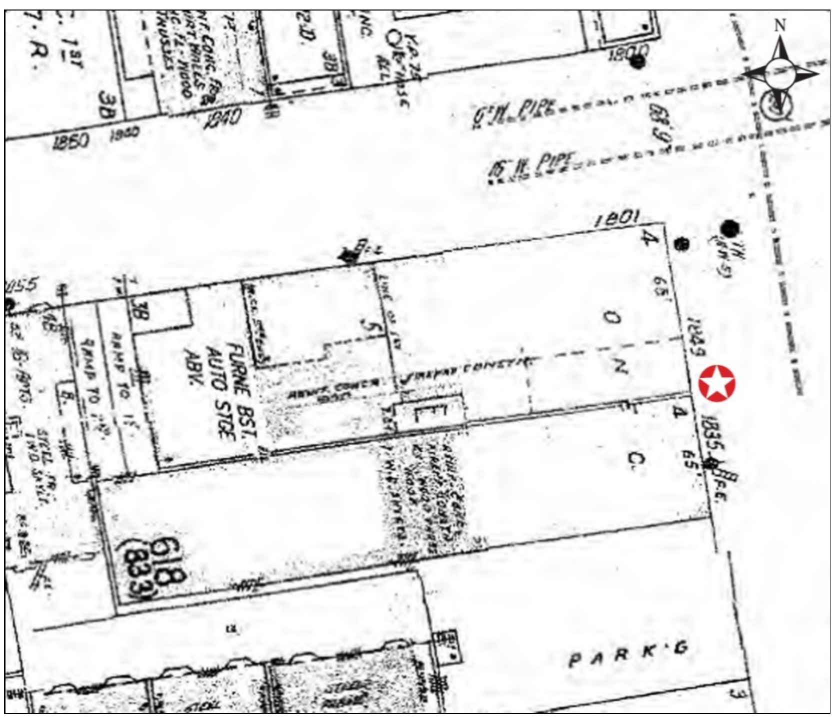


Figure 303. 1999 Sanborn Fire Insurance Map, 1849 Van Ness Avenue. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 1849 VAN NESS AVENUE / APN: 0618001

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 7, 1926 (Dec. 9, 1926)	156665	S. D. Wilcot		$750	Underpin foundation of south and west walls of basement building with brick walls to be continuous 24 ft. thick and at front innately 12 ft. high.
Sept. 4, 1931	194889 (152378)	c/o Allen Joe		$200	Rooms to pent house
Dec. 14, 1934 (Dec. 18, 1934)	9674 (11941)	Nash Co.		$200	To erect one electric sign 10 ft. above wall.
Mar. 12, 1937	25524 (26075)	J. E. French Co.		$950	Install individual letter against face of building.
Aug. 6, 1937 (Aug. 11, 1937)	29288 (29279)	J. E. French Co.		$500	Add frame platform for carton storage.
Jan. 15, 1959 (Jan. 30, 1959)	(196484)	J. E. French Co.		$500	Install neon & lamp time and temperature sign.
Jan. 15, 1959 (Jan. 30, 1959)	219220 (196483)	J. E. French Co.		$500	Install horizontal plastic sign “VOLVO”
Sept. 28, 1959 (Oct. 1, 1959)	228073 (203988)	J. E. French Co.		$25	To install (non-electric) sign reading “VOLVO” on Washington Street side of building.
Dec. 1, 1959 (Dec. 3, 1959)	230322 (205907)	J. E. French Co.		$1,000	Install “VOLVO” sign on building as shown on diagram.
Jun 7, 1962 (June 21, 1962)	266668 (238710)	J. E. French Co.		$600	Permit to erect sign.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Oct. 15, 1963 (Nov. 8, 1963)	290517 (259797)	AAA Leasing Corp. (lessee)		$34,000	Removal of existing wood & glass partitions; add 4,100 sq. ft. New hung ceiling; add new partitions; lay new resilient tile flooring; alter existing ramp and add new entry way.
Dec. 19, 1963	[not legible]	AAA Leasing Corp.		$200	Permit to erect sign on wall of side entrance of building along Washington.
Jan. 2, 1964	[not legible]	AAA Leasing Corp.		$500	Permit to erect sign on wall, along Van Ness Ave., north end.
Jan. 2, 1964	(261695)	AAA Leasing Corp.		$300	Permit to erect sign on wall, along Van Ness Ave, south end.
Feb. 3, 1964 (Feb. 7, 1964)	295021 (263142)	Copenhagen House of Danish Fur		$7,500	Install metal studs at 16” on center and 5/8” gypsum board partitions and a new aluminum and glass front entry.
June 22, 1964 (July 9, 1964)	301487 (269463)	National Recreational Center		$3,000	General remodel of interior to demolish existing store to house a pool tables for billiard center. Major wok involved adding new door to provide 2nd entrance, remove temporary glass partitions, etc.
Aug. 11, 1964 (Aug. 18, 1964)	303679 (270990)	National Recreational Center		$1,200	Six (6) canvas awnings; 3 on Van Ness side, and 3 on Washington side. Tubular steel frames.
Aug. 11, 1992	9213519			$450	Install two fireproof doors at roof on the back of the building.
Oct. 12, 1999	9921448			$1,000	To erect single faced electric sign.
Apr. 9, 2010	201004099960 (1208991)	AAU		$153,500	To respond to NOV #2010037398. Repair handrails at stairs and ramps and repair doors and hardware at stairs.
May 17, 2010 (July 8, 2010)	201005172567 (1215974)	AAU		$289,500	New sprinkler system to an existing building. Add 965 sprinkler heads. Add 816 uprights. Add 149 pendants.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 21, 2010 (June 28, 2010	201005202903 (1215219)	AAU		$575,000	New rated and non-rated walls and doors at building interior M.E.P.
June 3, 2010 (June 16, 2010)	201006033723 (1214273)	Elisa & Scott Stephens		$360,000	Install new notifier Fire Alarm system. In fully sprinklered building. 27 initiation devices, 151 notification devices.
June 28, 2010	201006285411			$2,000	Erect painted (non-structural) sign.
Oct. 12, 2010 (Jan. 3, 2011)	201010143041 (1228741)	AAU		$10,000	As built revisions to Permit #2010-05-17-2567. Change in underground; add 3" main, new hanger details.
May 9, 2011 (May 19, 2011)	201105095662 (1238254)	AAU		$500	Remove existing wall sign painted on the south facing side of building and the projecting sign on the Van Ness side.
May 9, 2011	S.F. Property Info Permit: 201105095667			$1,000	Legalize canopy at rear of building on Washington Street side. Within property line as required per planning dept.
May 9, 2011	S.F. Property Info Permit: 201105095676			$1,000	Painted (non-structural) sign.
May 25, 2011	201105256838 (1238734)	Elisa & Scott Stephens (AAU)		$5,000	Comply with correction notice item 2 dated 5/24/2011 to increase valuation of PA#201105095662 to $5,000.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

In June 2009, 1849 Van Ness Avenue was recommended individually eligible for listing in the California Register of Historical Resources (CRHR).[109] The property was found to qualify under three CRHR criteria: for its use as an automobile showroom where important brands were sold (Criterion 1); for its association with James E. French, purportedly the most important dealer of Dodge cars in the history of San Francisco (Criterion 2); and for its design as an intact automobile showroom (Criterion 3).

The current study concurs with the 2009 recommendation and finds the property individually CRHR-eligible under Criterion 1, as an embodiment of automobile-related development along "Auto Row" on Van Ness Avenue. The property is also eligible under CRHR Criterion 2, for its association with notable San Francisco auto dealer James E. French and under Criterion 3, as an excellent, intact example of automotive showroom along Van Ness Avenue. The period of significance is 1921 to 1960 and corresponds with the building's construction through its association with James E. French.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

1849 Van Ness Avenue retains integrity and remains individually eligible for CRHR listing.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: four-story height; rectangular plan
- Siting: flush with sidewalk along Van Ness Avenue and Washington Street
- Fenestration pattern: large-storefront windows and rows of upper-level windows
- Paneled spandrels
- Vertical piers separating window bays
- Multi-light window configuration
- Stucco wall surface
- Cornice and smooth, unadorned frieze separating ground story and upper floors

Interior

- Large open showroom with tall ceilings
- Tile and terrazzo floors in showroom
- Car elevator
- Open interiors on upper levels
- Wood-truss roof system on top floor original south wing
- Car ramp on south wing
- Wood staircase on south wing
- Concrete floors on upper levels with painted direction signs and numbering for autos

[109] William Kotsura, California Department of Parks and Recreation (DPR) 523 Series Form for 1839-1851 Van Ness Avenue, February 2009. On file with the San Francisco Planning Department

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Extension of the building on the south side, with a 50-foot, three-bay addition (1926)
- Alteration of storefronts on ground level through infill and creation of new openings prior to 1950s (visual observation and historic photographs)
- Removal of ornamental detailing along top of façade between 1950s and 1982 (historic photographs and SF Heritage Survey)
- Installation of blade signs in northern and southern corners of building by the 1950s; removal of southern sign and replacement of northern sign by 1982 (historic photographs)
- Installation of non-period lights bordering primary entrance added by 1982 (historic photographs)

Post-AAU Alterations:

- Installation of L.E.D. band sign in 1999 (Permit 9921448)
- Installation of upper-level, multi-light windows in 2009 (Permit 200707278069)
- Security cameras installed on ground level post 1998 (visual observation and historic photographs)
- Flag poles added on ground-level post 2011 (visual observation and historic photographs)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Alteration of storefronts on ground level through infill and creation of new openings by 1950s (visual observation and historic photographs)
- Replacement of original multi-light window on south elevation with large picture windows at unknown date (AAU, Memo to SWCA, 2/2/2016)

Post-AAU Alterations:

- Installation of L.E.D. band sign in 1999 (Permit 9921448)
- Installation of upper-level, multi-light windows in 2009 (Permit 200707278069)
- Security cameras installed on ground level post 1998 (visual observation and historic photographs)
- Canvas awning and security fence added at west end of north elevation (visual observation)zzz
- Replacement metal roll-up door installed at unknown date (AAU, Memo to SWCA, 2/2/2016)

INTERIOR

Building permits and visual observation indicate that the interior of the subject property has been extensively altered. The lobby retains important character-defining features, including the large open showroom with tall ceilings and terrazzo and tile floors. Other character-defining features reflecting the property's original use as an automotive showroom include an interior driveway providing access to upper floors; an automobile elevator; concrete floors with painted direction signs and numbering. The interior has been partially altered through the addition of a non-original mezzanine and staircase, dropped ceilings, and infill construction in some areas. Many of these alterations appear to predate AAU's acquisition of the property in 1998. The upper levels have been altered to varying degrees.

While the upper level features removal partitions, levels two through four have been subject to extensive infill, which has resulted in new interior office, classroom, and shop space.

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

1849 VAN NESS AVENUE (ES-8)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*. The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained and preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem/physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Cameras	Post-1998	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
L.E.D. Signage	1999	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove signage; restore physical appearance and materials of exterior wall
Upper-Level Windows	2009	Yes	Yes	Yes	N/A	No	No	N/A	N/A	Yes	Yes	None
Flags	Post-2011	Yes	Yes	No	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
SECONDARY ELEVATIONS Known/Visible Alterations												
Canvas awning and security fence	Post-1998	Yes	Yes	No	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Security Cameras	Post-1998	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained and preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem/physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
L.E.D. Signage	1999	Yes	No	No	N/A	No	N/A	N/A	N/A	No	Yes	Remove signage and restore physical appearance and materials of exterior wall
Upper-Level Windows	2009	Yes	Yes	Yes	N/A	No	No	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Cameras: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

L.E.D. Signage: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Upper-Level Windows: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Flags: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Canvas Awning and Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Cameras: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not block or damage distinctive character-defining features.

L.E.D. Signage: The project does not comply with Rehabilitation Standard No. 2. The expanse of exterior wall currently occupied by the L.E.D. signage is an important part of the building's overall appearance and vertical design composition, with the differentiated treatment of ground and upper stories. This expanse of exterior wall serves as a design element that defines the horizontal axis of the building at the street level and separate the ground stories and upper floors. This feature was added within the building's period of significance (1921-1960) and is considered character defining. In its current location the L.E.D. signage obscures the expanse of exterior wall and disrupts the building's design composition.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 2. Completed in 2009, this project previously received review and approval by City Preservation Planners. Historic photographs and some extant examples on the secondary elevations, indicate the original windows featured a multi-light configuration. This configuration is replicated in the new windows, preserving the distinctive character of the property.

Flags: The project complies with Rehabilitation Standard No. 2. The security cameras are minimal in scale and appearance and do not negatively affect the historic character of the property.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 2. The awning and fence are located on a rear, secondary elevation, and within a recessed portion of the building footprint. They are not clearly visible when viewing the building's primary elevations from Van Ness Avenue and do not obscure character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Cameras: The project complies with Rehabilitation Standard No. 3. The security cameras are clearly modern and do not result in a false sense of historical development.

L.E.D. Signage: The project does not comply with Rehabilitation Standard No. 3. Although the building displayed varying types of signage during the period of significance (1921-1960), this did not include signage of this type (L.E.D. lights), size, or prominence, installed on character-defining features of the building itself. The extant signage introduces a highly visible architectural feature on the primary elevation that is not consistent with the historic use or character of the property during its period of significance.

Upper-Level Windows The project complies with Rehabilitation Standard No. 3. The windows installed as part of the project replicate the character and multi-light configuration of the original windows and do not introduce an architectural element resulting in a false sense of historical development.

Flags: The project does not comply with Rehabilitation Standard No. 3. Historic photographs of the property indicate that there were no flag poles on the building's exterior during the period of significance (1921-1960). These features introduce an element that is inconsistent with the original use, design and character of the building.

Canvas Awning and Security Fence: The project does not comply with Rehabilitation Standard No. 3. Historic photographs indicate that the property did not have an awning or security fence on the building during the period of significance (1921-1960). These features introduce an element that is inconsistent with the original use, design and character of the building.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Cameras: Rehabilitation Standard No. 4 is not applicable to this project.

L.E.D. Signage: Rehabilitation Standard No. 4 is not applicable to this project.

Upper-Level Windows: Rehabilitation Standard No. 4 is not applicable to this project.

Flags: Rehabilitation Standard No. 4 is not applicable to this project.

Canvas Awning and Security Fence: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Cameras: The project complies with Rehabilitation Standard No. 5. Given the small size of the cameras, their installation did not unduly damage or obstruct distinctive materials and features.

L.E.D. Signage: The project does not comply with Rehabilitation Standard No. 5. Installation of the wrap-around signage has resulted in damage to/removal of original, character-defining wall materials. Given its prominent location and size, the signage interrupts and detracts from the distinctive features and design of the façade.

Upper-Level Windows: The project does not comply with Rehabilitation Standard No. 5. The project involved the removal of original multi-light windows, which were distinctive materials and features that characterized the property.

Flags: The project complies with Rehabilitation Standard No. 5. The installation of the flags did not unduly damage or obstruct character-defining materials and features.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 5. The installation of the awning frame and security fence did not unduly damage or obstruct distinctive materials or features.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Cameras: Rehabilitation Standard No. 6 is not applicable to this project.

L.E.D. Signage: Rehabilitation Standard No. 6 is not applicable to this project.

Upper-Level Windows: The project does not comply with Rehabilitation Standard No. 6. The original windows were likely replaced because they were failing. Rather than repair these character-defining features, the original windows were replace with windows that are not consistent with the design, texture, and materials of the original design.

Flags: Rehabilitation Standard No. 6 is not applicable to this project.

Canvas Awning and Security Fence: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Cameras: Rehabilitation Standard No. 7 is not applicable to this project.

L.E.D. Signage: Rehabilitation Standard No. 7 is not applicable to this project.

Upper-Level Windows: Rehabilitation Standard No. 7 is not applicable to this project.

Flags: Rehabilitation Standard No. 7 is not applicable to this project.

Canvas Awning and Security Fence: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Cameras: Rehabilitation Standard No. 8 is not applicable to this project.

L.E.D. Signage: Rehabilitation Standard No. 8 is not applicable to this project.

Upper-Level Windows: Rehabilitation Standard No. 8 is not applicable to this project.

Flags: Rehabilitation Standard No. 8 is not applicable to this project.

Canvas Awning and Security Fence: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Cameras: The project complies with Rehabilitation Standard No. 9. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

L.E.D. Signage: The project does not comply with Rehabilitation Standard No. 9. Since the 1950s, when the exterior storefronts were remodeled to their current configuration, the expanse of exterior wall currently occupied by the L.E.D. signage served to ground and define the horizontal axis of the building at the street level and separate the ground stories and upper floors. This feature was added within the building's period of significance (1921-1960) and is considered character defining. Given the location and size of the L.E.D. signage, it obscures this expanse of exterior wall, which is an important element in the building's vertical design composition. Although the work is differentiated from the old, it is not compatible with the historic materials, features, size, and scale of proportion of the character-defining ground level. In addition, installation of the sign has likely resulted in damage to the historic sheathing material of the exterior wall.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 9. Although the project resulted in the loss of the original windows, the replacement windows are compatible with the historic materials, features, size, and scale of their original counterparts. The replacement windows replicated the original multi-light pane configuration, in compatible materials and overall appearance.

Flags: The project complies with Rehabilitation Standard No. 9. The flags are generally compatible in scale and appearance, they do not obscure character-defining features, and they are clearly differentiated from the features that characterize the building.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 9. Located in a recessed area of a secondary elevation, the canvas awning and security fence are not clearly visible from Van Ness Avenue and views of the primary elevations. They are generally compatible in size and scale and do not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security cameras are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

L.E.D. Signage: The project complies with Rehabilitation Standard No. 10. Although installation of the signage may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Upper-Level Windows: The project complies with Rehabilitation Standard No. 10. Although the project resulted in the removal of original windows, the openings are intact and the essential form of the property has not been impaired by the installation of the new windows.

Flags: The project complies with Rehabilitation Standard No. 10. The flags are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Canvas Awning and Security Fence: The project complies with Rehabilitation Standard No. 10. Although installation of the awning and security fence may have resulted in damage to historic materials, their removal would not permanently impair the essential form and integrity of the historic property.

RECOMMENDATIONS

The security cameras, upper-level windows, flags, and side-entrance awning and gate are compliant with the SOIS, and no project modifications are recommended.

The L.E.D. signage is not compliant with the SOIS. To bring the project into compliance, it is recommended that the L.E.D. signage be removed using the least invasive means possible, with care taken to avoid damage to adjacent historic materials, surfaces, and finishes; the wall materials and finishes should be restored to match existing in appearance (including materials, texture, color, thickness, and application method).

2151 VAN NESS AVENUE (ES-6)

APN: 0575015

Construction Date: 1896-1897; 1902-1904; 1930; 1942-1947; 1965

Architect/Builder: Frank T. Shea and Will D. Shea (1902-1904); Henry A. Minton (1930)

Previous Status: Category A

Previous CHR Status Code: 2S

Date of Past Surveys/Evaluations: 1968; 1976; 1995

AAU Acquisition Date: 2005

Current Finding of Eligibility: 2S

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

The church at 2151 Van Ness Avenue was first constructed between 1896-1897 as a rectangular building with small wings at the western end. Additions in 1902-1904, 1930, 1943-1947, and 1965 have turned the building into the irregular shaped building seen today. Located on a rectangular, sloped lot and set flush to the sidewalk, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties and Broadway Street.

Comprised of varying volumes and heights, the Gothic-Richardsonian Romanesque style building displays an interweaving of Celtic and Romanesque themes throughout. The primary volume features a cross-gable roof, rounded half dome above the apse, and a flat roof on the sacristy addition to the west. Clad in masonry, granite curbstones, and terra cotta wall cladding, the church has a five-story northeast corner of the lot and two-story flat roof tower on the southeast corner. The rooflines are marked by arcading. Characteristic of the style, the structure features detailed ornamentation of the entry portals, arched windows, and rose and arched windows.

Figure 304. 2151 Van Ness Avenue.

A central main entry with a detailed double-panel doors and a decorative stone surround with five concentric arches is featured on the primary elevation. Above the main entry is a row of deco style statues in arched niches, with the center niche standing taller than the rest, and a border molding. A rose window encircled by granite blocks is centered above the statues. Secondary entries flank the main entry on the ground floor of each tower with a pair of arched stained glass windows separated by a column above. Single narrow arched windows flank the main entry and define the upper stories of the northeastern tower. Ornamental Lombard bands are present on the gable ends and between the towers.

Figure 305. 2151 Van Ness Avenue, primary elevation.

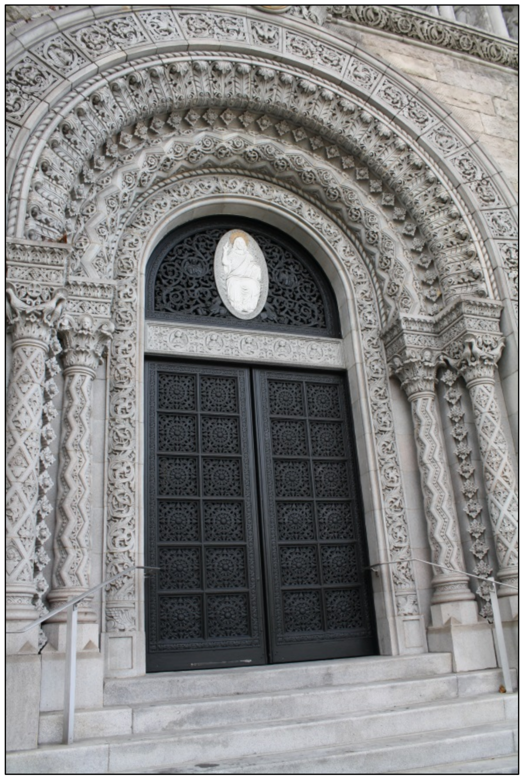


Figure 306. 2151 Van Ness Avenue, close up of the main entry on the primary elevation.

Figure 307. 2151 Van Ness Avenue, close up of the ornamentation on the primary elevation.

Secondary elevations are visible on the north, south, and west elevations. The north and south elevation feature tall arched arcades stained glass windows with surrounds along the nave. Smaller arcades of arched stain glass windows are located on the upper story of the north and south elevation along the nave and wrapping around the chancel on the west elevation. Rose windows with granite surrounds are located on the wings extending from the sanctuary. On the northern elevation, above the rose window is a V-shaped row of statues in arched niches with a border molding. Underneath the windows of the nave are single doors leading to the basement; there are four on the north elevation and one on the south elevation. Security fencing has been added in front of the nave between the towers and extending wings along the north and south elevations, restricting access to the basement doors. Access to the western elevation is restricted by a chain-link metal fence with an inset door. On the ground story of the western elevation, in the northern corner, is a metal double-door which currently functions as the primary entry. Stained glass windows in circular, rose, and arched window openings are found on the secondary elevations in various configurations.

Figure 308. 2151 Van Ness Avenue, northwestern perspective of the south elevation.

Figure 309. 2151 Van Ness Avenue, southeastern perspective of the north and west elevations.

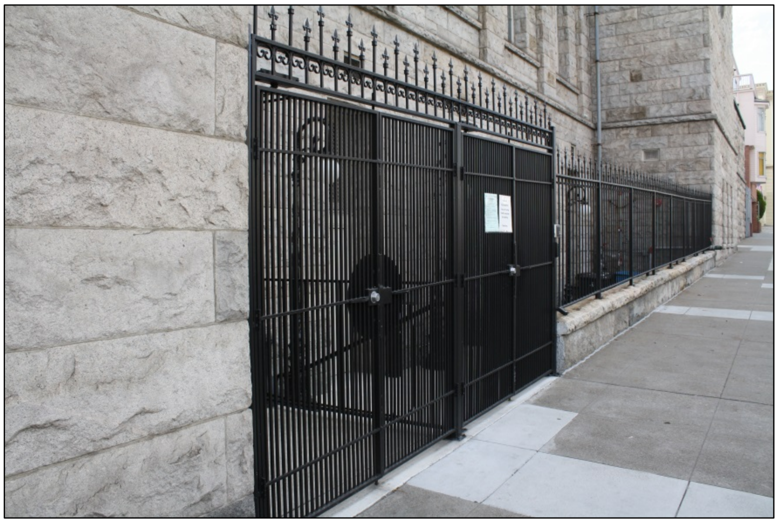


Figure 310. 2151 Van Ness Avenue, close up of the security gate in front of the basement doors on the north elevation.

Figure 311. 2151 Van Ness Avenue, close up of the basement doors on the northern elevation.

Figure 312. 2151 Van Ness Avenue, close up of the gate and entry door on the western elevation.

The main entry leads to a small rectangular narthex, which opens to the nave through paneled wood double-doors. The interior of the church is primarily intact from its original construction. Original features throughout the nave and sanctuary include the spatial arrangement, vaulted barrel and groin vault ceilings, rounded chancel and half-dome ceiling, plaster wall surfaces, marble columns with Romanesque capitals spanning the nave, marble alter, ornamental light fixtures, and wood floor, pews, carved paneling, wood wainscot, decorative wood doors, and a string course of angles around the nave with arched windows separated by statues. Seismic bracing has been added with the stair of the northeastern and southeastern towers. The basement-level gymnasium and stage surrounded by a decorative arched opening are also intact.

Figure 313. Interior nave looking towards the sanctuary of subject property.

Figure 314. Interior nave looking towards the narthex of subject property.

Figure 315. Interior sanctuary of subject property.

Figure 316. Interior seismic bracing installed in stairwells and hallways off the main nave of subject property.

Figure 317. Interior basement of subject property.

Figure 318. Interior basement stage of subject property.

SITE HISTORY

The Romanesque-Richardsonian church at 2151Van Ness Avenue was constructed by the San Francisco's Roman Catholic Archdiocese for the parish of St. Brigid. The parish was founded in 1862 with the construction of the current church building beginning in 1896. The church was originally designed by the architectural firm of Shea and Shea.[110]

The architectural firm of Shea and Shea was comprised of brothers Frank T. Shea (1859-1929) and William D. Shea (1866-1931), who completed a number of works for the San Francisco Archdiocese. Notable projects includes 1822 Eddy Street, San Francisco (Holy Cross Catholic Church and Parish Hall, 1899), 221 Valley Street, San Francisco (St. Paul's, 1900-1902), 745 Waverley Street, Palo Alto (St. Thomas Aquinas Church, 1901), and 19 St. Mary's Avenue, San Francisco (Church of St. John the Evangelist, 1902).[111]

Work on the building was phased with the basement and foundation being constructed between 1896-1897 and the interior, and north and south sides of the interior constructed between 1902 and 1904.[112] In 1930, Henry A. Minton was commissioned to design the Romanesque Revival façade, as well as complete interior alterations to accommodate additional seating. A native of Boston, Minton (1914-1974) studied at Harvard and after the 1906 earthquake, Minton headed west and eventually began working with the Shea brothers. In 1911, Minton struck out on his own, working primary for the Bank of Italy (Bank of America) and the Roman Catholic Archdiocese of San Francisco. Alterations that occurred after Minton included the replacement of stained glass windows in the 1940s and the construction of the upper story and roof of the corner tower in 1965.[113]

---

[110] "Father Cottle and St. Bridget's." *San Francisco Call,* 23 March 1896.

[111] Susan Dinkelspiel Cerny, *An Architectural Guidebook to San Francisco and the Bay Area* (Salt Lake City: Gibbs Smith, 2007).

[112] Anne Bloomfield, National Register of Historic Places Nomination Form for St. Brigid's Church, May 1995. On file with the San Francisco Planning Department.

[113] Bloomfield 1995.

Citing dwindling attendance and the need to seismically upgrade the building, the Archdiocese closed the parish in 1994. The building sat vacant for 11 years prior to AAU's occupancy in 2005.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

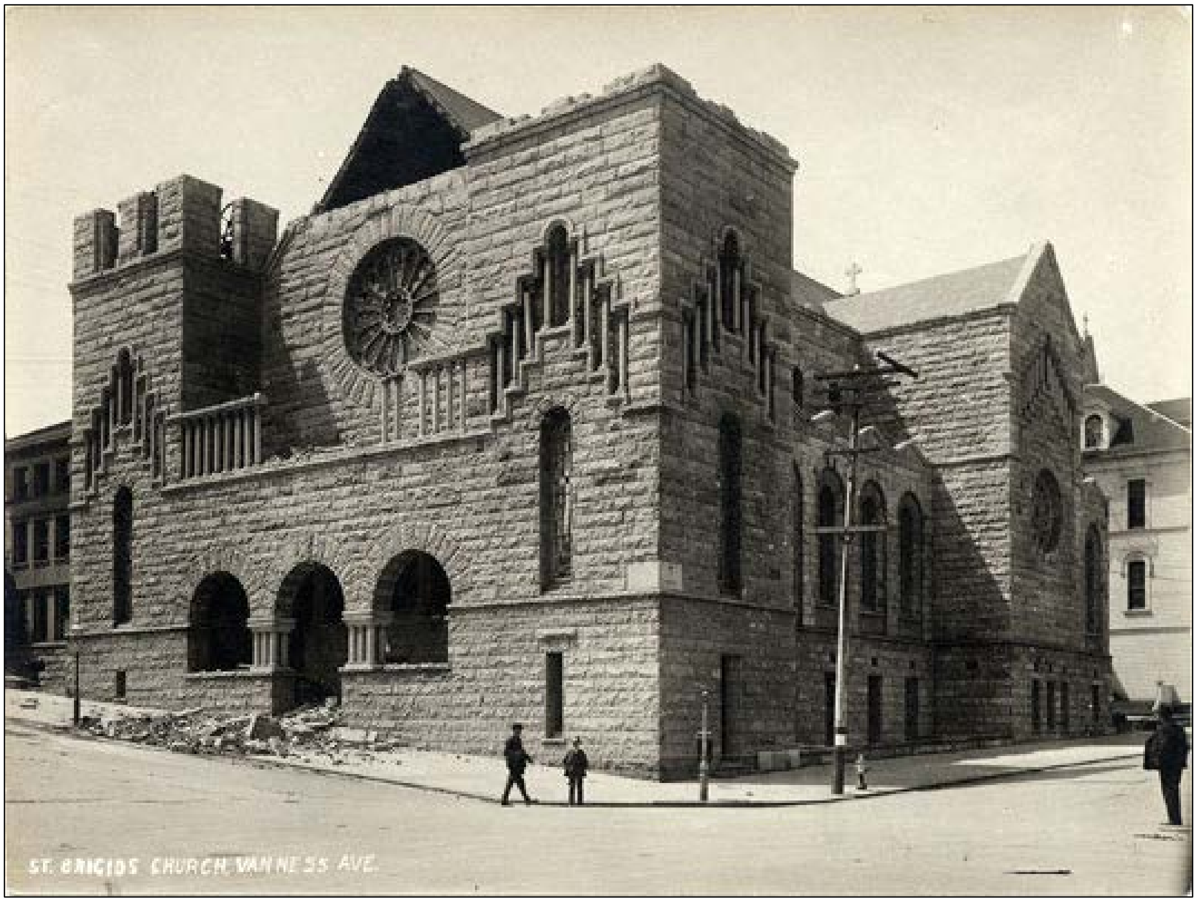


Figure 319. 1906 photo of 2151 Van Ness Avenue. (Source: San Francisco Library Photos History)

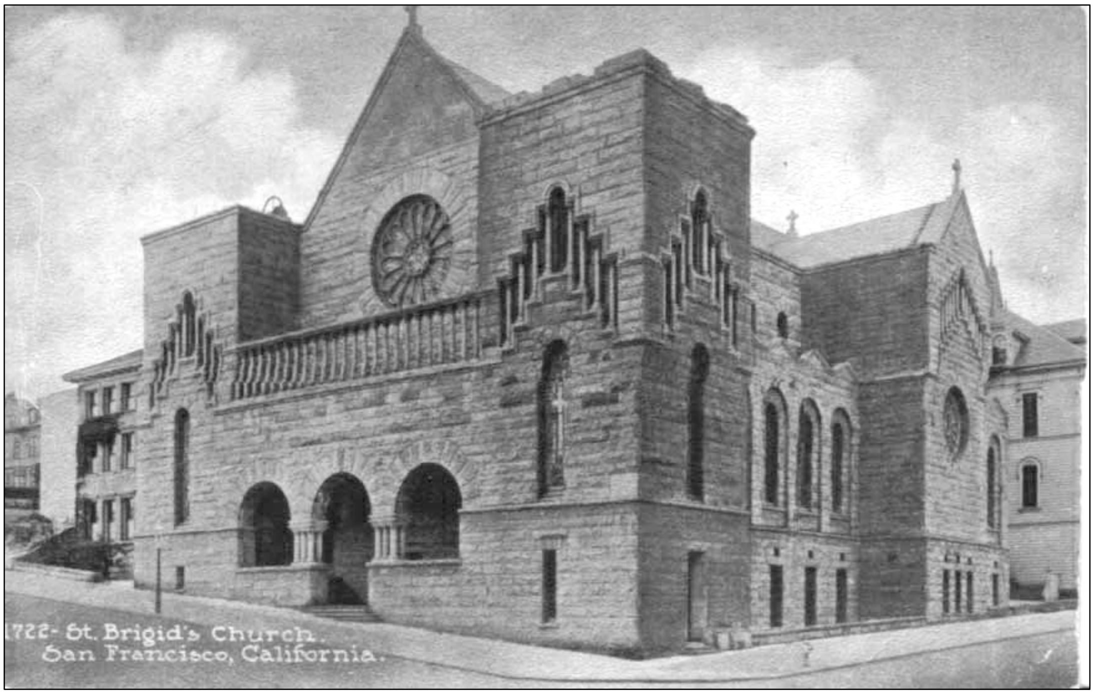


Figure 320. 1910 photo of 2151 Van Ness Avenue. (Source: From AAU)

Figure 321. 2006 photo of 2151 Van Ness Avenue. (Source: Academy of Art University)

Figure 322. 1904-1910 image of the interior of 2151 Van Ness Avenue. (Source: ww.st-brigid.org)

Figure 323. 1994 image of the interior of 2151 Van Ness Avenue. (Source: ww.st-brigid.org)

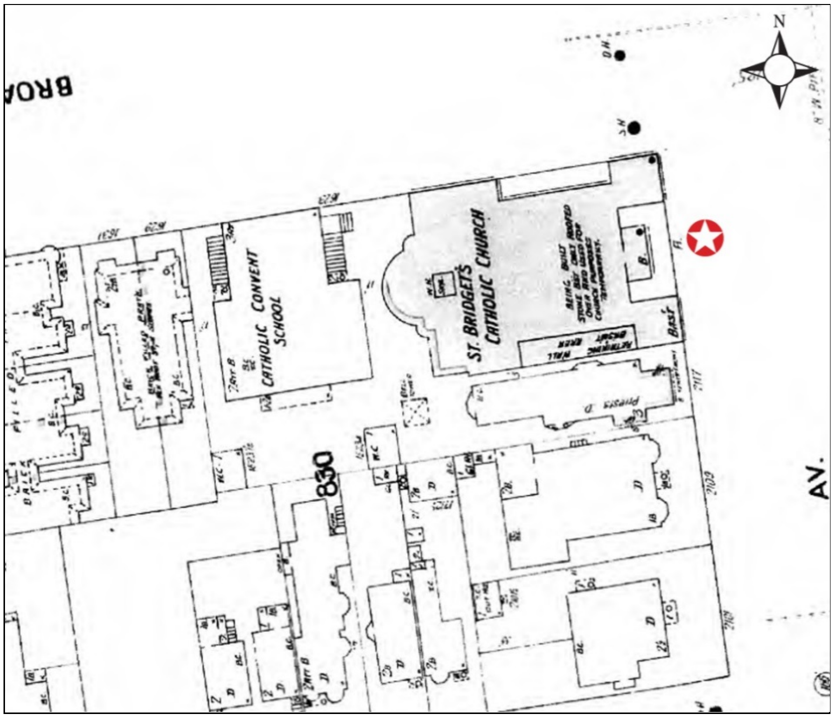


Figure 324. 1899 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

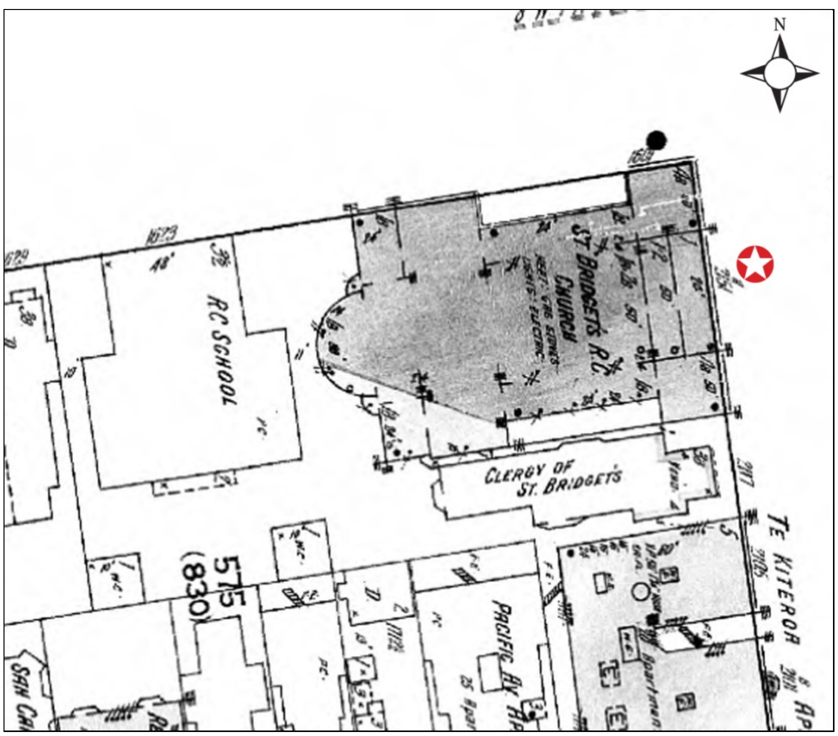


Figure 325. 1913 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 326. 1938 Aerial Photograph, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 327. 1950 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

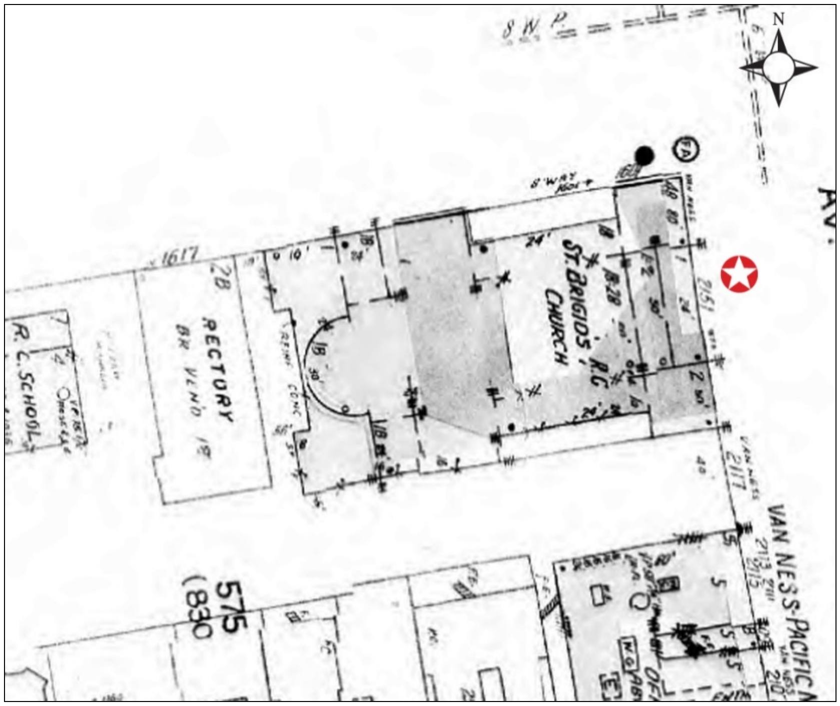


Figure 328. 1968 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

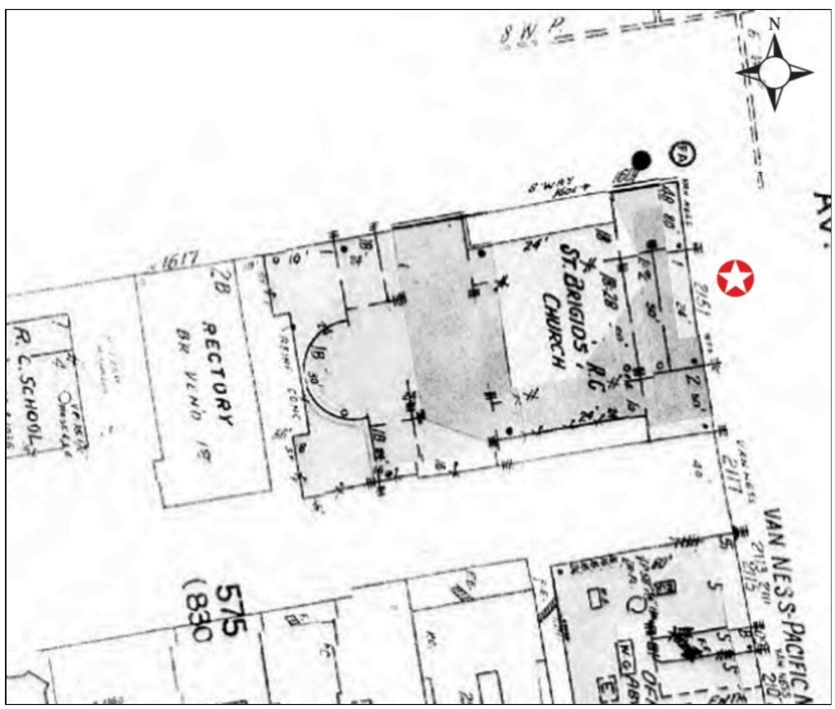


Figure 329. 1986 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

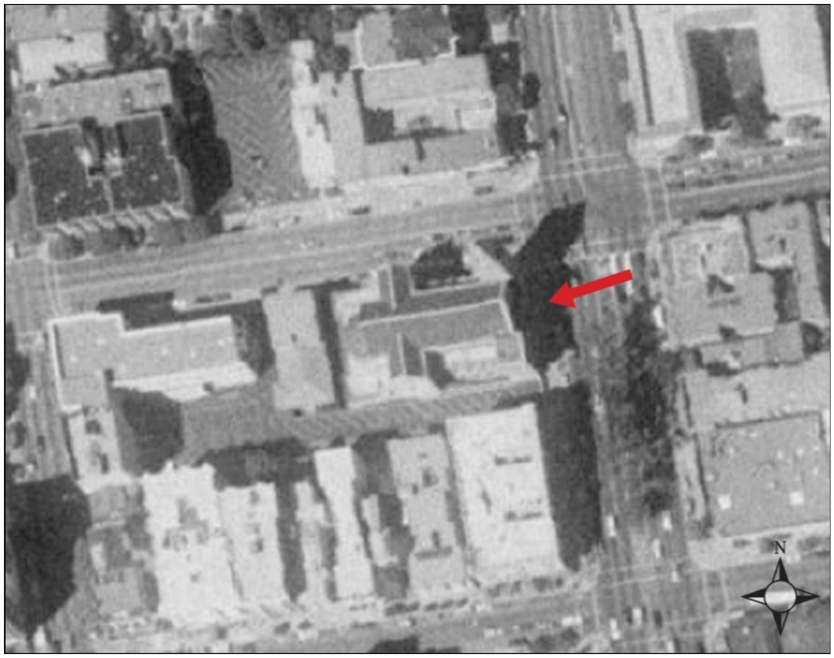


Figure 330. 1998 Aerial Photograph, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

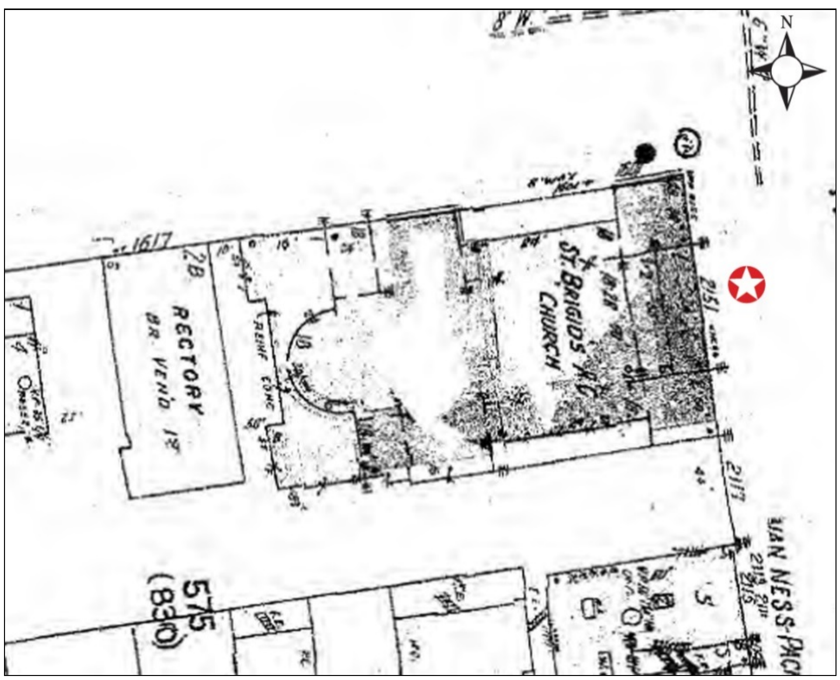


Figure 331. 1999 Sanborn Fire Insurance Map, 2151 Van Ness Avenue. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 2151 VAN NESS AVENUE / APN: 0575015

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 8, 1947	97195	Archbishop of San Francisco	Henry A. Minton + Wilton Smith	$50,000	Addition and alterations as per plans.
July 20, 1960 (Aug. 12, 1960)	238781 (213936)	The Roman Catholic Arch Bishop of St. Bridge's	Wilton Smith & Associates	$1,550	Break through brick wall on south gable of church and install additional exit door, with concrete platform and ramp. Install handrails.
Aug. 22, 1960 (Sept. 2, 1960)	234885 (214788)	The Roman Catholic Arch Bishop of St. Bridge's	Wilton Smith & Associates	$2,000	Supplement to original application. Install new raised platforms and from railings on east end of auditorium.
Dec. 13, 1999 (Jan. 11, 2000)	9926171 (899263)	Archdiocese of San Francisco		$8,000	Brace walls of Parapet on north & south sides of building.
Dec. 12, 2005	200512120068 (1074445)	Listed as "N/A"		$15,000	Abatement of items #3, #30, and #42 as listed in consulting report dated Nov. 2, 2005. Asbestos abatement of nave ceilings & basement gymnasium.
Feb. 7, 2006	200602074010 (1078643)	AAU		$20,000	Plaster work in ceiling in nave, EXTG lath and framing to remain, cosmetic work only.
May 9, 2006	200605091125 (1086174)	AAU		$2,500	Restoration of steel doors & arch in main entrance. Strip existing paint & apply new finish (cosmetic only). Entrance on Van ness exempt under 1134B.2.1 EX 4.
Jan. 17, 2007 (July 22, 2009)	200701171874 (1190362)	AAU	Middlebrook and Louie Structural Engineers	$800,000	Seismic retrofit: structural upgrade to existing cathedral. UMB retrofit general procedures.
May 6, 2010	201005061836	AAU		$100	Replacement of existing copy at existing wall sign (non-structural).
July 22, 2010	201007227241			$15,000	Revision to approve PA #200701171874. Install an Accessible (ADA) ramp in lieu of accessible lift.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
May 3, 2011	201104214564 (1236915)	AAU		$49,500	Fire sprinkler permit. Voluntary installation of automatic fire sprinklers within the basement level of the building.
Dec. 15, 2011 (Jan. 20, 2012)	201112150783 (1256243)	AAU		$35,000	Install Fire Alarm system (no exterior work).
Jan. 24, 2013 (Mar. 4, 2013)	201301248684 (1287673)	AAU		$500	Remove small identification sign on façade at ground floor.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

2151 Van Ness Avenue is an Article 10 designated landmark (No. 252). In addition, the property was determined individually eligible for the National Register of Historic Places (NRHP) under Criteria A and C by the Keeper and is listed in California Register of Historical Resources (CRHR). As part of the current study, the property also appears eligible for the CRHR under Criterion 1, for its association with Irish and Irish-American settlement and ethnic history in San Francisco (period of significance is 1896-1965). In addition, the property appears CRHR eligible under Criterion 3, as an exceptional example of the Gothic-Romanesque styles applied to ecclesiastical architecture (period of significance is 1896-1915).

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

2151 Van Ness Avenue retains integrity and remains eligible for the NRHP and for the CRHR.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Scale and massing: comprised of various volumes and heights and irregular plan that is flush with sidewalk
- Setback and siting: flush with sidewalk and set into hillside
- Cross-gabled roof on primary volume to east, and apse and flat roof on 1940 sacristy addition to west
- Fenestration: arched entryways on façade and rectangular doorways on north elevation; and arched and circular windows
- Granite block and terra cotta wall cladding
- Terra cotta ornament on entry portals and arched windows
- Ornamental Lombard band on gable ends and towers
- Ornamental columns spanning narthex between towers
- Stained glass windows in circular, rose and arched windows

Interior

- Spatial arrangement: narthex, nave, side aisles, chancel, sacristy, and transepts and choir gallery
- Vaulted ceiling (barrel and groin vaults)
- Rounded chancel and half-dome ceiling
- Plaster wall surfaces
- Wood floors, pews, carved paneling, and wainscoting
- Stringcourse of applied ornament
- Clerestory comprised of carved angels
- Marble columns
- Marble altar
- Stained glass windows, arched and round rose windows
- Ornamental, hanging light fixtures
- Carved, wood pulpits
- Two organs (pipe organ on 2nd floor sanctuary) and pipes
- Original wood doors
- Basement-level gymnasium and stage with decorative arched opening

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Installation of hand rails at main entrance prior to 2005 (historic photographs)

Post-AAU Alterations:

- Fixed angle skateboard deterrents on main steps post-2005 (historic photographs)
- Restoration of steel doors and arch at main entrance in 2006 (Permit 200605091125)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Creation of new exit through existing brick wall on south elevation in 1960 (Permit 238781)

Post-AAU Alterations:

- Installation of ADA lift on north elevation in 2010 (Permit 201007227241)
- Installation of black, fleur-de-lys security fence post-2005, which resulted in the removal of a portion of the low, granite wall (visual observation and historic photographs)

INTERIOR

Pre-AAU Alterations:

- Creation of barrel vault ceiling with recessed lighting in nave prior to 1994 (historic photographs)

Post-AAU Alterations:

- Asbestos abatement (Permit 200512120068) and plaster work on nave ceiling (Permit 200602074010); extant ceiling appears clad in large acoustical tiles, with new additional recessed lighting
- Seismic retrofit, metal bracing in interior tower stairways, 2007 (Permit 200701171874)
- Installation of ADA lift in basement-level gymnasium at unknown date (SF Planning Docket 2009.0097A); Carpet added to floor in basement-level gymnasium at unknown date (SF Planning Docket 2009.0097A)
- Infill of southwest corner of basement-level gymnasium to create interior room in 2011 (AAU, Memo to AAU, 2/2/2016)
- Installation of fire alarm and sprinklers in 2011 (Permits 201104214564 and 201112150783)
- Rear (west) wall at chancel altered, addition of drywall (AAU, Memo to SWCA, 2/2/2016)

Dates inconclusive or awaiting further data:

- Small acoustical tiles added to apse ceiling at unknown date (visual observation; AAU, Memo to SWCA, 2/2/2016)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

2151 VAN NESS AVENUE (ES-6)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Skateboard Deterrents	Post 2005	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None
Restoration of steel doors and arch at main entry	2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	None
SECONDARY ELEVATIONS Known/Visible Interior Alterations												
ADA Lift and Security Fence	2010	Yes	Yes	Yes	N/A	No	N/A	N/A	N/A	Yes	Yes	None
INTERIOR ALTERATIONS Known/Visible Alterations & Character-Defining Features (where applicable)												
Sanctuary Ceiling	2005/2006											Pending
Seismic Retrofit	2007	Yes	Yes	Yes	N/A	No	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Skateboard Deterrents: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Restoration of steel doors and arch at main entry: The project does not involve a change in use that resulted in major alterations to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

ADA Lift and Security Fence: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Seismic Retrofit: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 2. Although this change resulted in minimal damage to historic materials, the skateboard deterrents are minimal in scale and appearance and do not negatively affect the historic character of the property.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 2. The project did not alter nor negatively affect the appearance or materials of the steel doors and arch, which are considered character defining.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 2. Prior to AAU's acquisition of the building in 2005, historic photographs indicate that a non-original chain-link fence had been installed along the short granite wall that spans a portion of the north elevation, near an inset and below-grade area. While installation of the current fence resulted in the removal of the non-character-defining chain-link fence, it also included the destruction of historic materials through the installation of the current fence poles and the partial removal of a small portion of the low-granite wall to the east. The project was limited to a recessed area of a secondary elevation however, and only included removal of a minimal portion of the low-granite wall, leaving the overall character of the feature intact. Installation of the security fence did not negatively affect the overall character of the low-granite wall intact and does not obscure character-defining features.

The ADA lift that was added to the property replaced a staircase that historic photographs indicate was introduced to AAU's acquisition of the subject property. It is unclear from historic photographs if a staircase was historically present at this location; regardless, the staircase was located on a secondary elevation, on the ground level, and did not materially contribute to or affect the building's overall massing, scale, distinctive materials, or any other character-defining features. Replacement of the staircase with the ADA lift similarly has not introduced any visual feature to the subject property or negatively affected any of the features essential in its ability to convey its historical significance.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 2. The seismic retrofit introduced large steel bracing into the interior stairwells of the two towers at the northeast and southeast corners of the building. The bracing is only visible within these stairwells, which are considered secondary spaces, and are not essential in the ability for the property to convey its historical significance.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 3. The skateboard deterrents are clearly modern and do not result in a false sense of historical development.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 3. The project did not unduly alter the historic character or appearance of the steel doors and arch, nor did it introduce an architectural elements creating a false sense of historical development.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 3. These elements are clearly modern and do not result in a false sense of historical development.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 3. While visible in a secondary interior space, the seismic bracing is clearly modern and does not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Skateboard Deterrents: Rehabilitation Standard No. 4 is not applicable to this project.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 4. Although not original, historic photographs indicate the steel doors and arch were added to the building prior to 1931 and within the period of significance (1896-1965). As architectural features that are representative of the church's expansion and associations with Irish and Irish-American settlement and ethnic heritage in San Francisco, they have acquired significance within their own right.

ADA Lift and Security Fence: Rehabilitation Standard No. 4 is not applicable to this project.

Seismic Retrofit: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 5. The installation of the skateboard deterrents did not unduly damage or obstruct historic materials, and the property retains the distinctive materials, features, and finishes that convey its historical significance.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 5. The restoration of the steel doors and arch preserved the distinctive materials and features that characterize the property.

ADA Lift and Security Fence: The project does not comply with Rehabilitation Standard No. 5. The project involved the partial removal and destruction of the low-granite wall, an architectural feature composed of distinctive materials and finishes.

Seismic Retrofit: The project does not comply with Rehabilitation Standard No. 5. The project resulted in the partial removal and destruction of the wood stairs and historic ceiling materials, which were distinctive materials and features that contributed to the character of the property.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Skateboard Deterrents: Rehabilitation Standard No. 6 is not applicable to this project.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 6. Rather than replace the steel doors and arch, the project repaired these character-defining features and left them in place.

ADA Lift and Security Fence: Rehabilitation Standard No. 6 is not applicable to this project.

Seismic Retrofit: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Skateboard Deterrents: Rehabilitation Standard No. 7 is not applicable to this project.

Restoration of steel doors and arch at main entry: The project complies with Rehabilitation Standard No. 7. Visual observation indicates that the project did not result in any damage to historic materials.

ADA Lift and Security Fence: Rehabilitation Standard No. 7 is not applicable to this project.

Seismic Retrofit: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Skateboard Deterrents: Rehabilitation Standard No. 8 is not applicable to this project.

Restoration of steel doors and arch at main entry: Rehabilitation Standard No. 8 is not applicable to this project.

ADA Lift: Rehabilitation Standard No. 8 is not applicable to this project.

Seismic Retrofit: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 9. The skateboard deterrents are generally compatible in scale and appearance, they do not unduly obscure character-defining features, and they are differentiated from the features that characterize the building.

Restoration of steel doors and arch at main entry: Rehabilitation Standard No. 9 is not applicable to this project.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 9. Prior to AAU's acquisition of the building in 2005, historic photographs indicate that a non-original chain-link fence had been installed along the short granite wall that runs the length of a short inset, and below-grade area on the north elevation. This project included the damage to/removal of historic materials through the installation of the security fence poles and the partial removal of a small portion of the low-granite wall to the east. The project was limited to a recessed area of a secondary elevation, however, and only affected a minimal portion of the low-granite wall. The overall character of the low-granite wall remains intact.

The ADA lift replaced a staircase that, according to historic photographs, was introduced prior to AAU's acquisition of the subject property. It is unclear from historic photographs if a staircase was historically present at this location; regardless, the staircase is located on a secondary elevation, on the ground level, and not highly visible from the public right-of-way. Similarly, the ADA lift is not highly visible from the public right-of-way, is differentiated and generally compatible with the size, scale, and proportion of the historic property.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 9. The seismic bracing is located in a stairwell that is a secondary interior space.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Skateboard Deterrents: The project complies with Rehabilitation Standard No. 10. The skateboard deterrents are generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Restoration of steel doors and arch at main entry: Rehabilitation Standard No. 10 is not applicable to this project.

ADA Lift and Security Fence: The project complies with Rehabilitation Standard No. 10. Although installation of the ADA lift and security fence may have resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

Seismic Retrofit: The project complies with Rehabilitation Standard No. 10. Although the project resulted in damage to historic materials, its removal would not permanently impair the essential form and integrity of the historic property.

RECOMMENDATIONS

The projects are in overall compliance with the SOIS; no design modifications are recommended at this time.

2209 VAN NESS AVENUE (ES-5)

APN: 0570029

Construction Date: 1901

Architect/Builder: Moses J. Lyon

Previous Status: Category A

Previous CHR Status Code: 3S

Date of Past Surveys/Evaluations: 1968; 1976; 1986; 1995

AAU Acquisition Date: 1998

Current CHR Status Code: 3S

Applicable Criteria: A and C (NRHP), 1 and 3 (CRHR)

Historical Resource? Yes

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

The building at 2209 Van Ness Avenue was constructed in 1901, originally as a single-family residence before its conversion to a restaurant, and then as home to the International Institute. The rectangular shaped plan building is set back and elevated from the sidewalk. Located on a rectangular, sloped lot, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties. The Classical Revival style building has a three-and-a-half story volume is capped with a hipped rood and a symmetrical facade. The shallow roof eaves terminate in a molded cornice and dentil course.

Classical Revival ornamental detailing is present throughout the primary facade. The rounded concrete porch with brick siding, granite steps, marble porch floor, and a concrete balustrade leads to a central main entry. The main entry features wood double-doors with glass panels and decorative screens and an arched transom above. A decorative surround and lintel frame the entry way. Prominent, two-story Ionic columns flank the main entry and a second-story balconette with decorative iron railing and scrolled brackets. Paired oculus windows overlook the second-story balconette. On the outside of the Ionic columns are wood-frame sash windows. The dormer protruding from the hipped roof surmounts the columns and has a centered Palladian window.

Figure 332. 2209 Van Ness Avenue.

Figure 333. 2209 Van Ness Avenue, close up of the main entry on the primary elevation.

Figure 334. 2209Van Ness Avenue, close up of the Classical Revival details on the primary elevation.

Figure 335. 2209 Van Ness Avenue, close up of the yard and security fence on the primary elevation.

Secondary elevations are visible on the south and west elevations. The south elevation, visible along a narrow walkway leading to the rear of the property, features Classical Revival features and rectangular windows. The west (rear) elevation has doors leading to the first and basement stories with rectangular windows. A second story addition projects to the west and is supported by squared columns. A simplified version of the original structure's cornice line surrounds the addition's flat roof. Wood-framed sash windows and jalousie windows are present of the secondary elevations in various configurations. Security bars have been added over the basement story windows.

Figure 336. 2209 Van Ness Avenue, southeastern perspective of the first story on the north elevation.

Figure 337. 2209 Van Ness Avenue, close up of the second story addition on the west elevation.

Figure 338. 2209 Van Ness Avenue, close up of the basement entry and windows on the west elevation.

Figure 339. 2209 Van Ness Avenue, view of the columns under the second story addition and the rear patio.

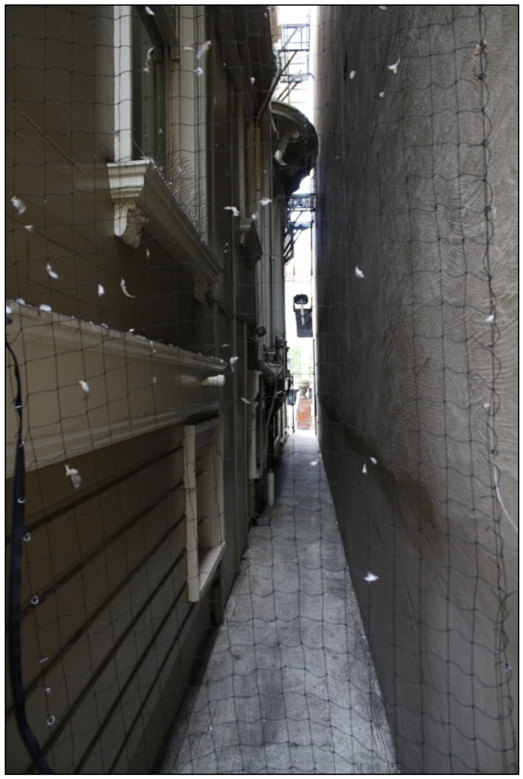


Figure 340. 2209 Van Ness Avenue, walkway on the southern elevation.

SITE HISTORY

The single-family residence at 2209 Van Ness Avenue was designed by architect Moses J. Lyon for Ida and Abraham Brown in 1901. Moses J. Lyon was a noted San Francisco architect who came to California in 1884 and was a student of H.C. Macy before studying at the Columbia College Metropolitan Art School of New York City.[114] Some of his more prominent works in San Francisco include 1881 Bush Street (Ohabai Shalome Synagogue, 1895), 381-383 Bush Street (J.E. Adams Building, 1902), and 721 Filbert Street (Hildebrand Stables, 1906).

Louis Metzger bought the house from the Browns for his family in 1910 for a price of $50,000. He added the rear addition in 1916, reported with the help of the original architect Moses Lyons.[115] Mr. Metzger would own the house until 1924 when it was sold to Raymond and Suzan Duhem.

For the next 29 years the building housed a variety of businesses, including a dressmaking shop and a dancing school, until it was purchased in 1953 by the International Institute of San Francisco, a non-profit which "welcomes, educates, and serves immigrants refugees and their families as they join and contribute to the community."[116] The International Institute hired the architectural firm of Hardin and Choy to do a structural and space plan analysis in 1985. Later that year the International Institute completed some exterior repairs and seismic upgrades to the building. The International Institute continued to function in

[114] Survey File for 2209 Van Ness Avenue, on file at the San Francisco Planning Department.

[115] Building Permit 70561; Letter from John F. Fitzgerald dated Feb. 18, 1965, San Francisco Planning Van Ness Survey File.

[116] International Institute of the Bay Area, www.iibayarea.org/about/. Accessed January 2016.

2209 Van Ness Avenue, until the late 1990s. Prior to AAU's acquisition of the building, building permits indicate the building was owned by Andrew Meieran.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

Figure 341. 1964 photo of 2209 Van Ness Avenue. (Source: San Francisco Library Photos History)

Figure 342. 1976 photo of 2209 Van Ness Avenue. (Source: San Francisco Planning Department)

Figure 343. 1998 photo of 2209 Van Ness Avenue. (Source: Academy of Art University)

Figure 344. 2011 photo of 2209 Van Ness Avenue. (Source: Academy of Art University)

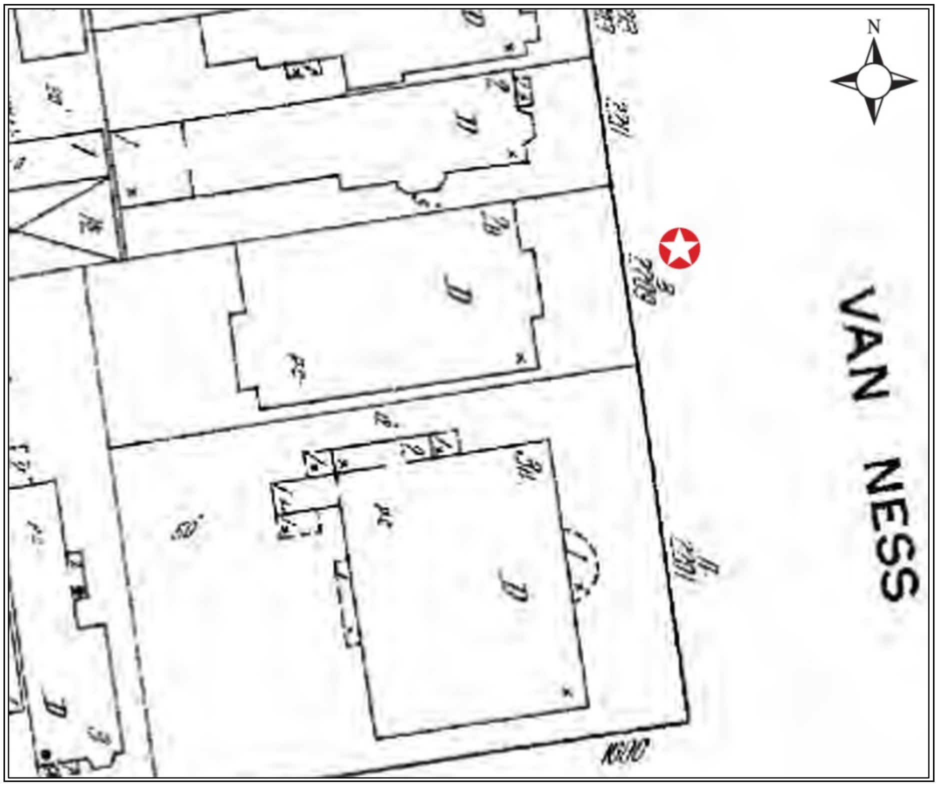


Figure 345. 1913 Sanborn Fire Insurance Map, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 346. 1929 Sanborn Fire Insurance Map, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 347. 1938 Aerial Photograph, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 348. 1968 Sanborn Fire Insurance Map, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 349. 1974 Aerial Photograph, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

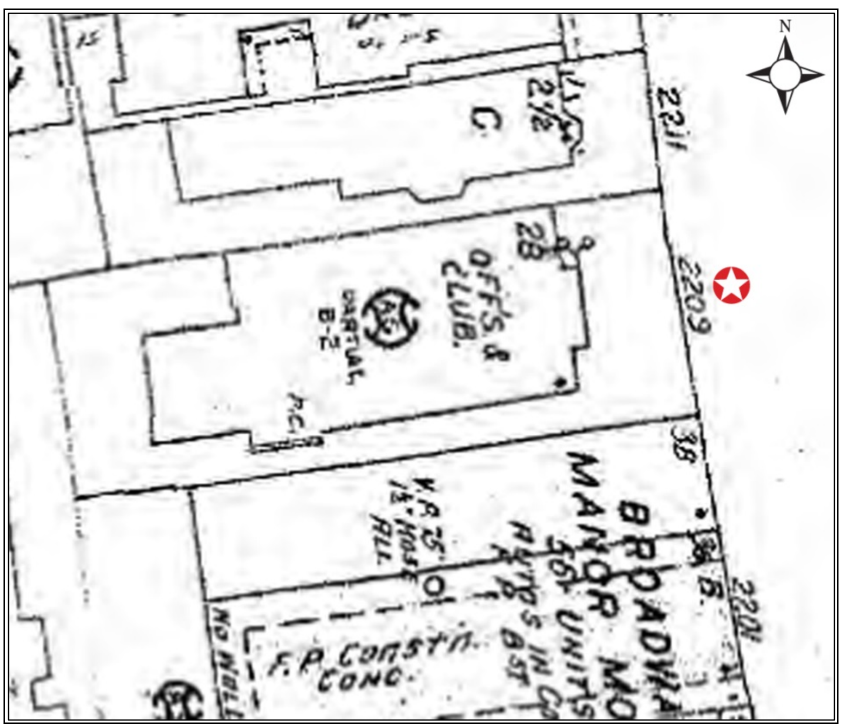


Figure 350. 1999 Sanborn Fire Insurance Map, 2209 Van Ness Avenue. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 2209 VAN NESS AVENUE / APN: 0570029

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Apr. 17, 1913	48822	Louis Metzger		$350	Build new fireplace in upstairs sitting room. Divide partition in basement. Make opening to roof in attic.
June 24, 1916 (June 26, 1916)	70561	Louis Metzger		$950	Add in bed room and bath at rear of house after beam attached.
Jan. 11, 1919 (Jan. 15, 1919)	84265	Louis Metzger		$150	New fire place
Aug. 31, 1921	100885	Louis Metzger		$500	To re-shingle roof. Cedars shingles, balance in asbestos.
May 18, 1950 (July 13, 1950)	127500 (116815)	Suzan Duheur		$300	Outside wall of roof porch burned by fire.
Aug. 11, 1953 (Oct. 21, 1953)	158073 (143342)	International Institute of San Francisco		$7,500	New exits to basement, a few partition changes. Removal of bath rooms, addition of toilet rooms.
Apr. 2, 1965 (Apr. 22, 1965)	313121 (279952)	International Institute		$900	The front doors of the building are going to be removed and the front porch raised to door level.
June 13, 1967	342555 (307970)	International Institute	John Clay	$20,000	Interior sprinkler system, new stairs, rest room facilities, new roof.
Mar. 27, 1987 (Aug. 14, 1987)	8704028 (573762)	International Institute of San Francisco	Hardin & Choy Associates, Inc.	$16,000	Install structural bracing to rear portion of existing building. (Cancelled).
Oct. 7, 1987 (Oct. 28, 1987)	8714441 (578297)	International Institute of San Francisco		$7,500	Alter sprinkler system.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
June 7, 1988 (Oct. 25, 1988)	8807495 (599057)	International Institute of San Francisco	Hardin & Choy Associates	$45,000	Install office partitions, and upgrade light fixtures, and sub panel & main service.
Apr. 8, 1997	9706293 (818868)	Andrew Meieran		$11,000	Re-roofing; remove all comp shingles down to wood sheathing. Add flashing, vents, and Class A 20 year shingles.
Jan. 23, 1998	9801269 (841783)	Elisa & Scott Stephens	Dale Meyer Associates	$6,000	Close a few door openings. Redo a few bathrooms and laundry room.
Feb. 19, 1998 (Mar. 13, 1998)	9802790 (845003)	Elisa & Scott Stephens	Dale Meyer Associates	$8,000	Install ramp to basement door, and remodel 1st, 2nd, and 3rd floor bathrooms, and close opening on 3rd floor.
Jan. 14, 1999	9900915 (869313)	Elisa & Scott Stephens		$12,000	Install HC bedroom and HC lift for access (ADA work).
Apr. 2, 1999	9906397 (875515)	Elisa & Scott Stephens	Dale Meyer Associates	$1	Completion of Application #9801269 and 9802790.
July 2, 2004	200407027975 (1029353)	AAU	Middle Brook + Louie (design engineers)	$40,000	Structural reinforcement at stair beams.
Apr. 2, 2008	200804028570			$3,000	Erect a (non-electric) double faced pylon sign.
July 13, 2010	201007136459			$9,800	Demo existing shower & vanity, make new shower pan. Install new shower valves, drains & new vanity. Re-tile shower enclosure & bathroom floor to make ADA accessible.
Jan. 24, 2013 (Mar. 4, 2013)	201301248666 (1287694)	AAU		$500	Remove wall sign at ground level.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

2209 Van Ness appears individually eligible for the California Register of Historical Resources (CRHR) under Criterion 1, as an example of early, single-family residential development along the Van Ness Avenue corridor prior to the 1906 earthquake. The property also qualifies individually under CRHR Criterion 3, as a notable intact example of Classical Revival residential architecture along the Van Ness Avenue corridor.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

2209 Van Ness Avenue retains integrity and is CRHR eligible. The period of significance is 1901-1916, with the end date corresponding to the addition constructed on the rear of the property.

CHARACTER-DEFINING FEATURES SUMMARY

Exterior

- Three-and-a-half story volume capped with a hipped roof
- Set back and elevated from the sidewalk
- Shallow roof eaves terminating in molded cornice and dentil course
- Prominent, two-story engaged Ionic columns on facade
- Classical Revival ornamental program
- Centered second-story balconette with decorative iron railing and scrolled brackets
- Lower rounded concrete porch with brick siding and balustrade
- Wood-frame sash windows with lead window on north rear elevation
- Paired oculus windows overlooking 2nd story balconette
- Granite steps and marble porch floor
- Square Ionic columns and pilasters
- Original wood main entry door
- Pediment roof dormer

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Basement level entryway at northern portion of property appears to have been altered through the addition or widening of the opening to accommodate double doors and a large transom window. In addition, concrete steps and entry path were added in 1953 (historic photographs, Permit 158073, and SF Planning Survey File)

Post-AAU Alterations:

- Installation of ADA lift and removal of concrete steps on ground level (Permits 9802790 and 9900915)
- Addition of security fence and window bars along the ground story after 1998 (visual observation and historic photographs)

Dates inconclusive or awaiting further data:

- Wood and glass double doors on basement level replaced with metal doors circa late 1990s (visual observation and historic photographs)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Second floor addition at rear (west) end of building in 1916 (Permit 70561)
- Installation of jalousie windows and security bars on basement level of west elevation (visual observation)

Post-AAU Alterations:

- Unknown; awaiting further data

Dates inconclusive or awaiting further data:

- Basement level window openings in-filled with plywood on south elevation (AAU, Memo to SWCA, 2/2/2016)

PART 2 HRE: SECRETARY OF THE INTERIOR'S STANDARDS REVIEW

2209 VAN NESS AVENUE (ES-5)

For the properties of the study group, the appropriate treatment approach is rehabilitation. This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation*.

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new construction will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new construction: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
ADA Lift and Removal of Stairs	1999	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	Yes	Yes	None
Addition of security fence and window bars	Post-1998	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

ADA Lift and Removal of Stairs: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Security Fence and Window Bars: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and therefore complies with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 2. The ADA lift provides access through a double-wide entryway that was created in 1953. Building permits and information included in the City Planning Survey File indicate that the 1953 opening was added to provide access to the basement and included the installation of double wood- and glass-doors underneath a glass transom and accessed via a non-original concrete pathway and short stairway. This change occurred outside of the building's period of significance (1901-1916) and does not appear to have acquired significance in its own right. As a result, the installation of the ADA lift, which also included alteration of the stairs and pathway, and potential replacement of the double doors, has only affected elements of the building that are not original and not considered to be character-defining. The lift does not affect any other features of the building or its design that convey the reasons for its historical significance.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 2. The security fence and window bars do not obscure any of the building's character-defining features.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 3. The ADA lift is clearly modern and does not create a false sense of historical development.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 3. Although historic photographs indicate that there was no security fence during the period of significance (1901-1916), the extant security fence and window bars do not create a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 4. The double-wide entry where the ADA lift was located was completed in 1953. The property's period of significance is defined as 1901-1916 and research failed to identify any historic associations that would suggest the 1953 entry had acquired significance in its own right.

Security Fence and Window Bars: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 5. The project involved noncontributing features and spaces.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 5. The installation of the security fence and window bars resulted in minimal damage to historic materials.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

ADA Lift and Removal of Stairs: Rehabilitation Standard No. 6 is not applicable to this project.

Security Fence and Window Bars: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

ADA Lift and Removal of Stairs: Rehabilitation Standard No. 7 is not applicable to this project.

Security Fence and Window Bars: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

ADA Lift and Removal of Stairs: Rehabilitation Standard No. 8 is not applicable to this project.

Security Fence and Window Bars: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 9. The ADA lift provides access through a double-wide entryway that was created in 1953. Building permits and information included in the City Planning Survey File indicate that the 1953 opening was added to provide access to the basement and included the installation of double wood- and glass-doors underneath a glass transom and accessed via a non-original concrete pathway and short stairway. This change occurred outside of the building's period of significance (1901-1916) and does not appear to have acquired significance in its own right. As a result, the installation of the ADA lift, which also included alteration of the stairs and pathway, and potential replacement of the double doors, has only affected elements of the building that are not original and not considered to be character-defining. It is clearly modern and is differentiated from the old work, while remaining compatible in overall scale and proportion.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 9. The security fence and window bars are compatible in scale and appearance, and do not obscure character-defining features.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

ADA Lift and Removal of Stairs: The project complies with Rehabilitation Standard No. 10. The ADA lift is generally compatible in scale and appearance, they do not obscure character-defining features, and their removal would not result in any impairment to the building.

Security Fence and Window Bars: The project complies with Rehabilitation Standard No. 10. The security fence and window bars are compatible in scale and appearance, do not obscure character-defining features, and their removal would not result in any impairment to the building.

RECOMMENDATIONS

The projects are both generally compliant with the SOIS. No design modifications are recommended at this time.

2211 VAN NESS AVENUE (ES-4)

APN: 0570005

Construction Date: 1876

Architect/Builder/Designer: Unknown

Previous Status: Category A

Previous CHR Status Code: N/A; survey rating of "C" (Contributory) in the Van Ness Area Plan

Date of Past Surveys/Evaluations: 1995; 1968

AAU Acquisition Date: 2005

Current CHR Status Code: 6Z (not eligible for local, state, or federal listing)

Applicable Criteria: N/A

Historical Resource? No

Project Modifications Recommended? No

BUILDING AND PROPERTY DESCRIPTION

Originally constructed as a single family residence in 1876, the building at 2211 Van Ness Avenue had been converted to commercial use by the 1980s. The rectangular shaped building is set back and elevated from the sidewalk. Located on a rectangular, sloped lot, the building has a primary elevation fronting Van Ness Avenue and secondary elevations facing the neighboring properties. The Italianate style building has a symmetrical façade and is capped with a flat roof with shallow roof eaves which terminate in a molded cornice with brackets.

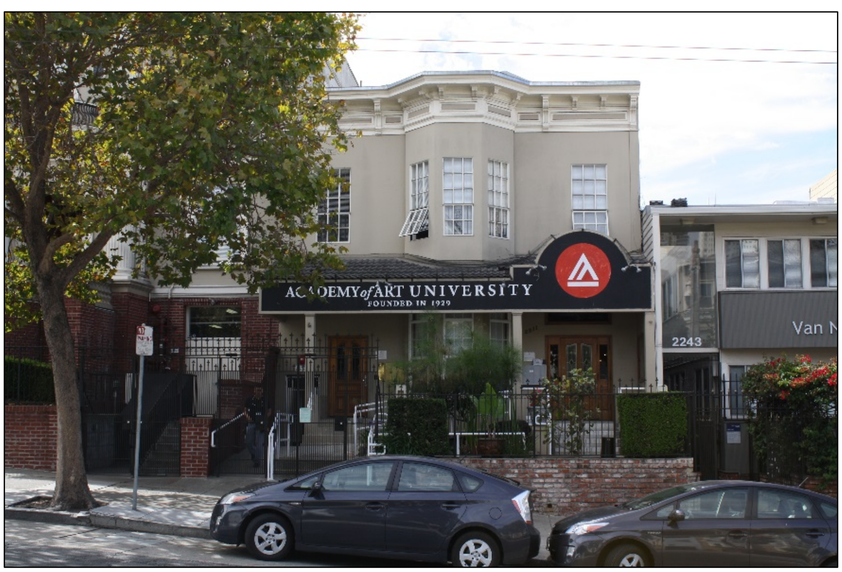


Figure 351. 2211 Van Ness Avenue.

The original façade was expanded to the south, east, and west during the structure's conversion to a commercial use. The Italianate ornamental detailing and stucco finish continued on the additions. The main entry is located on the northern corner of the first story, while two secondary entries are located on southeast corner of the elevation. Stacked bay windows, characteristic of the style, are centered on the elevation. On the second story, single rectangular windows flank the bay windows. Multi-light awning windows are utilized on the elevation.

Figure 352. 2211 Van Ness Avenue, close up of the first floor on the primary elevation.

Figure 353. 2211 Van Ness Avenue, close up of the second story on the primary elevation.

Secondary elevations are visible on the north, south and west elevation. The west elevation features wood siding with aluminum sliding windows in various configurations. The small portions of the north and south elevations which are visible are plain with no fenestration.

Figure 354. 2211 Van Ness Avenue, northeastern perspective of the upper stories of the west elevation

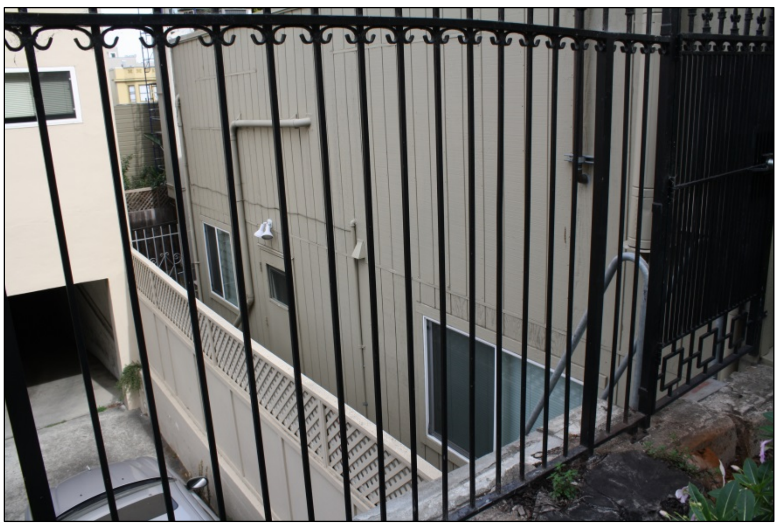


Figure 355. 2211 Van Ness Avenue, northeastern perspective of the lower story of the west elevation.

SITE HISTORY

Information on file with SF Heritage indicates that the Italianate-style residence was constructed in 1876 for James McNeil and converted to a boarding house between 1911 and 1915. Building permits indicate the building was owned by Edith Vivian by 1920 and subsequently by W.D. Forbes in 1934, at which time the single-family residence was converted into private apartments. By 1943, the building contained six apartments with additional interior alterations designed by William Mooser III. The third generation in a family of San Francisco architects, Mooser was born in 1893 and educated at the Ecole des Beaux Arts in Paris in the early 1920s. Upon his return to San Francisco, he eventually joined his father, William Mooser II, in the family practice, designing numerous buildings throughout San Francisco and California. One of

Mooser Jr.'s best-known and celebrated commissions is the Santa Barbara County Courthouse, constructed in 1926.[117]

The building appears to have remained residential into the following decades. By the early 1980s, at least a portion of the building was altered for commercial purposes by Arden Development and Investment. Building permits identify Kham Dinh Tran as the owner as of 1984; around that time, Mr. Tran converted the building into use as the Golden Turtle Restaurant. Extensive interior and exterior alterations were completed over the following two decades, including the replacement of original windows and doors, and additions to the west and south of the building. Most notably, the façade of the building was altered/expanded through the introduction of a third bay on the southern portion of the building. Additions at that time also included an awning spanning the width of the building and the removal and replacement of original windows and doors.

Due to unpermitted work and extensive appeals by the former owner, permits on file at the Department of Building Inspection do not clearly reveal when the southern addition to the primary façade occurred. However, Sanborn Fire Insurance Company maps and photographs on file with San Francisco Planning indicate that this alteration was completed after 1999 and prior to AAU's acquisition of the property in 2005.

Visual Overview: Sanborn Fire Insurance Maps and Historic Photographs/Materials

The following sections present a visual overview of the site history and construction chronology, through available historic photographs, materials, Sanborn Fire Insurance Maps. A tabular summary of available building permits on file with the City of San Francisco Department of Building Inspection follows.

[117] David Parry, "William Mooser, Architect," *Encyclopedia of San Francisco*, San Francisco Museum and Historical Society, 2003.

Figure 356. Photo of 2211 Van Ness Avenue circa early 1980s. (Source: San Francisco Heritage)

Figure 357. 1968 photo of 2211 Van Ness Avenue. (Source: Here Today, San Francisco Junior League Survey)

Figure 358. Photo of 2211 Van Ness Avenue, circa early 2000s. (Source: San Francisco Planning Department)

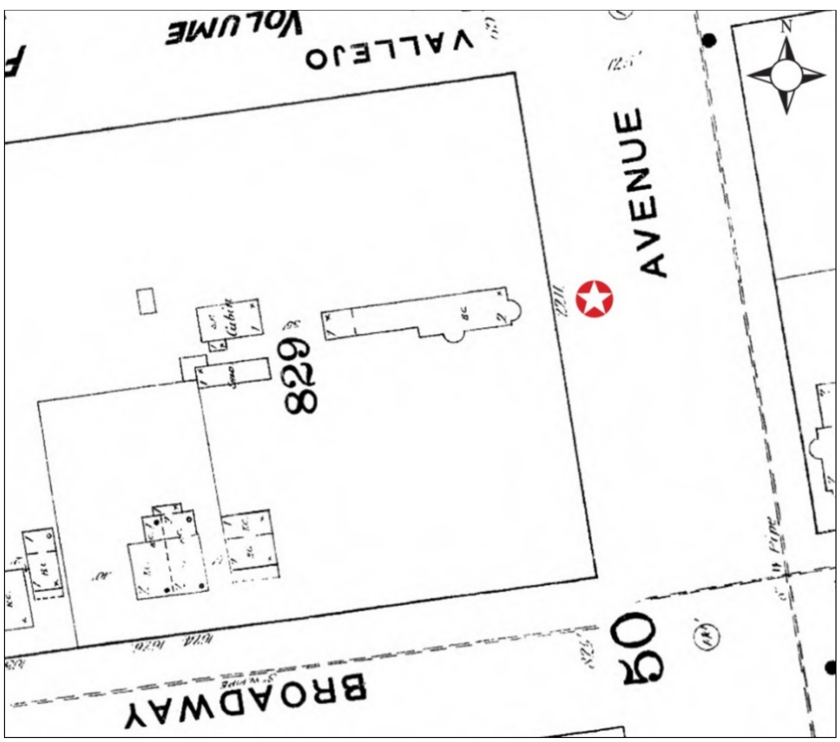


Figure 359. 1886 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

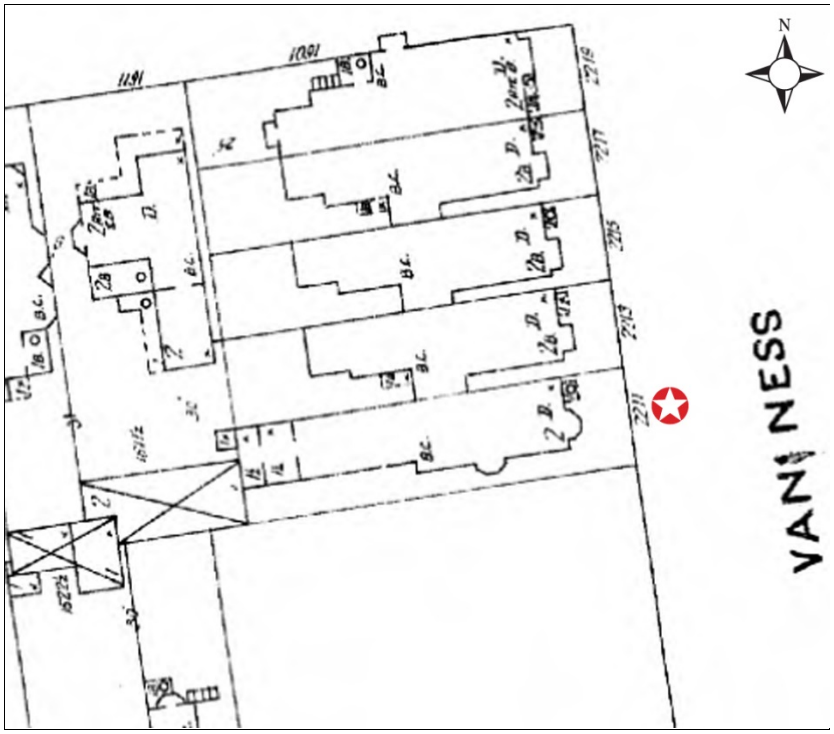


Figure 360. 1899 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

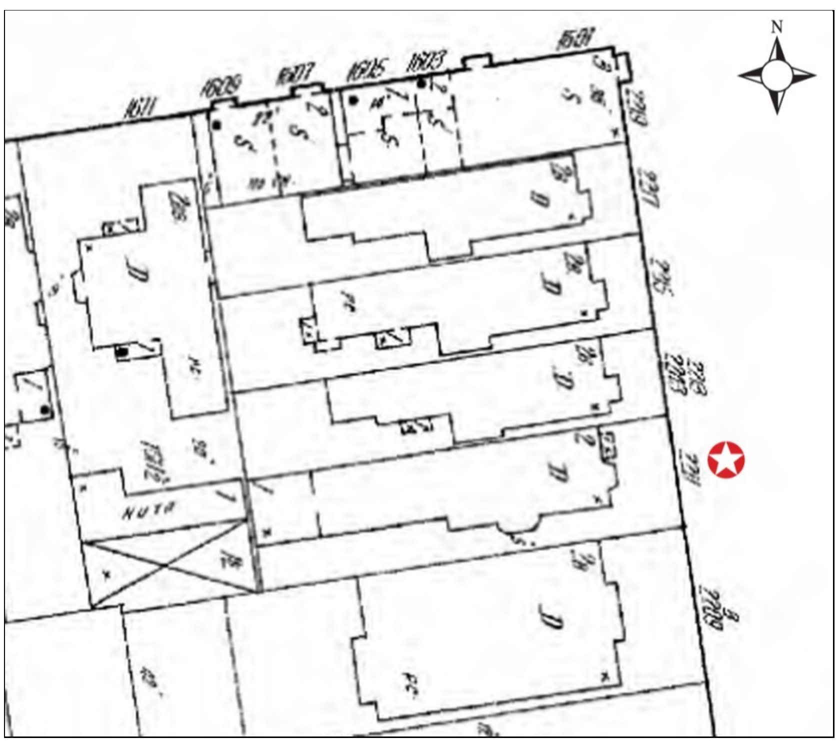


Figure 361. 1913 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

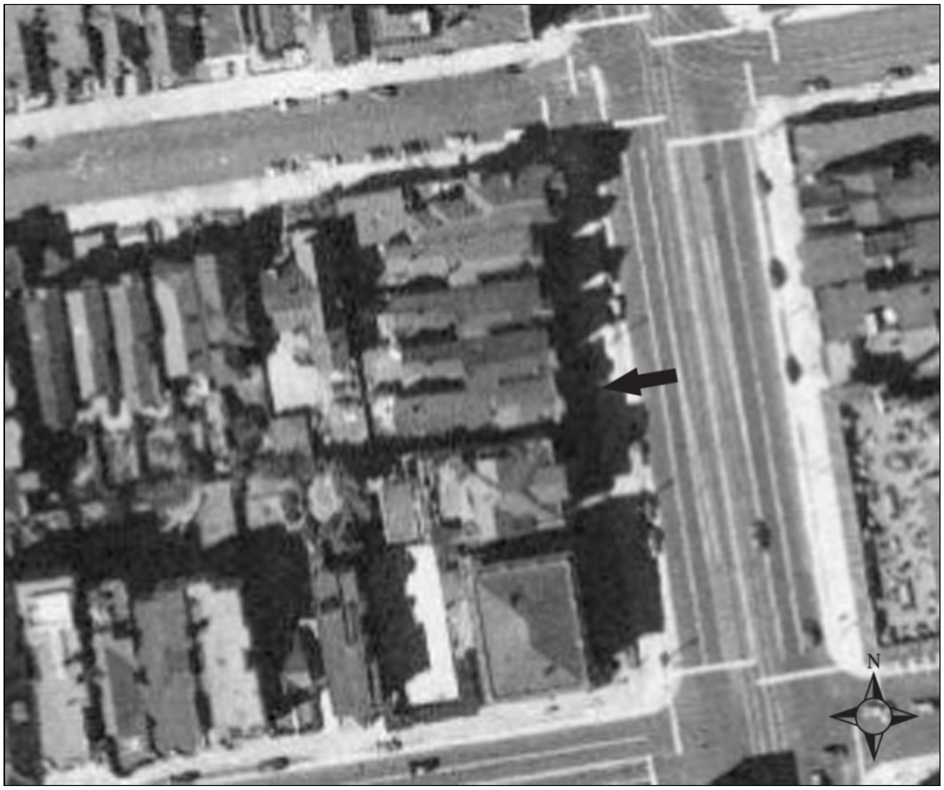


Figure 362. 1938 Aerial Photograph, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

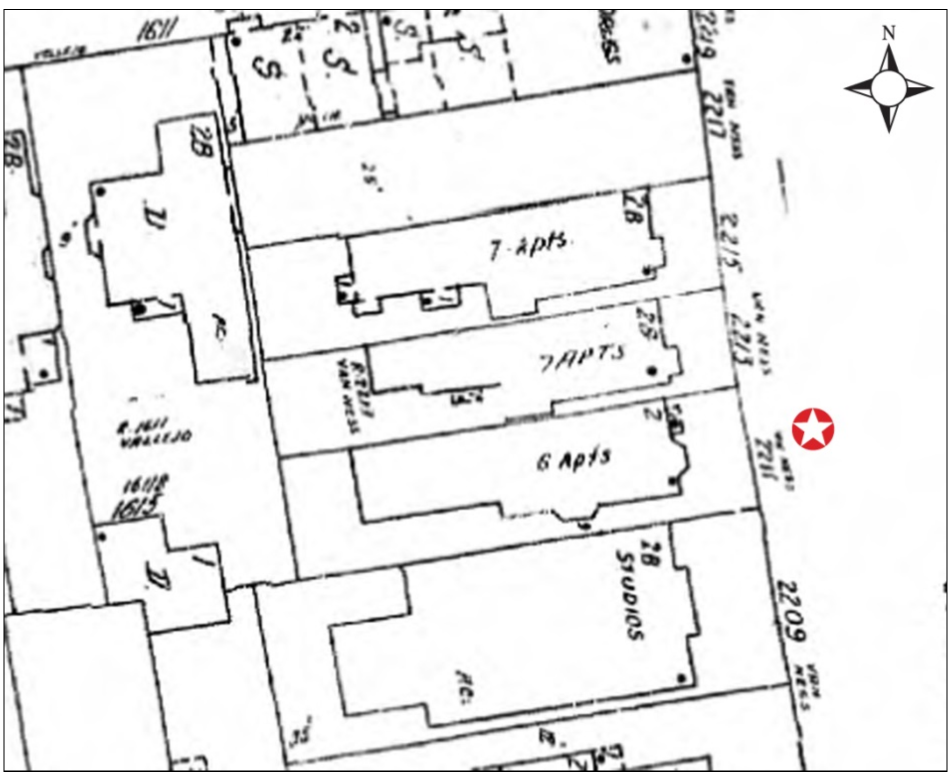


Figure 363. 1950 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

Figure 364. 1974 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

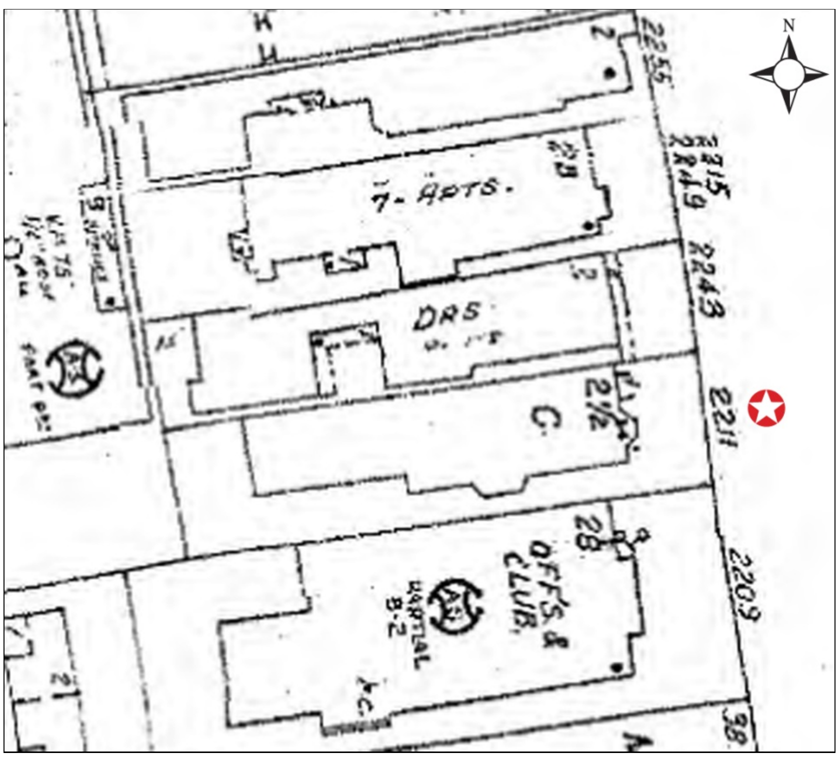


Figure 365. 1999 Sanborn Fire Insurance Map, 2211 Van Ness Avenue. (Source: Environmental Data Resources)

BUILDING PERMITS, SF DEPARTMENT OF BUILDING INSPECTION, 2211 VAN NESS AVENUE / APN: 0570005

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 6, 1920 (Dec. 8, 1920)	96233	Edith Vivian		$50	To build for a private garage.
June 25, 1934 (July 11, 1934)	7330	W.D. Forbes		$500	Change size of rooms, new front to building, new floors, paint, paper, add new doors.
May 31, 1938 (Apr. 27, 1938)	33974	W.D. Forbes		$250	Change two unused rooms into an apartment.
Jul. 9, 1943 (Oct. 22, 1943)	72469	National Housing Agency…H.O.L.C.	William Mooser	$9,000	Alter Frame Residence into six apartments as, per plans.
Feb. 7, 1952 (Mar. 19, 1952)	130204 (143697)	W.D. Forbes		$500	Underpin new foundation wall with concrete piers to a depth of 5’-6” below existing foundation.
Feb. 20, 1962	[not legible]	Walter D. Forbes		$250	Add a 6 foot extension to end of present building to widen a very narrow room at end of building.
Aug. 29, 1984	8408882 (520305)	Kham Dinh Tran		$1,000	Demolition of interior partitions and other.
Jan. 31, 1985	8408883 (526726)	Kham Dinh Tran	Alpha Design Group	$110,000	Remove some existing walls. Reinforce foundation. Elect. & plumbing. Add new addition on 1st and 2nd floor.
Apr. 26, 1985	8502799 (530307)	Golden Turtle Restaurant; Kham Dinh Tran		$5,000	Install kitchen exhaust hood & fan. Make up air system.
Sept. 3, 1985	8506675 (535955)	Kham Dinh Tran		$8,000	Install fire-sprinkler system.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jun. 3, 1993	9207938 (722782)	Kham Dinh Tran		$95,000	Removal of construction encroaching in required rear yard. Reduction of dwelling units from 3 to 2.
Oct. 6, 1997	9719861 (834006)	Kham Dinh Tran		$1,000	Alterations to conform to ADA requirements. Provide ramp to upper level dining area. Remove bar for 5' turn radius. Revise entrance door to provide required width.
Feb. 26, 2007	200702264852			$50,000	Existing ground floor remodel to provide facilities for sleeping, sanitation, cooking & eating. New full height walls added. New baseboard heater, shower room, and laundry room added.
Apr. 2, 2008	200804028568			$2,000	Re-paint on existing sign (non-electric, single face sign).
Mar. 20, 2009	200903204570(1180997)	AAU		$6,000	Major demo to fix walls and deck area at rear room and underneath. Possible leakage from roof and deck. Repair and waterproof as needed.
Apr. 2, 2009	200904025477(1182008)	AAU		$32,000	Repair wood dry-rot and fix walls and deck area at rear rooms. Replace new drywall and damaged wood on walls.
Apr. 28, 2009	200904247074(1183861)	AAU		$15,000	Re roof over existing with spray polyurethane foam roofing system.
Sept. 13, 2010	S.F. Property Info Permit: 201009130698			$5,000	Respond to Nov#201056926 to obtain permit for new partitions at first floor dining area and construction of a kitchen at unit #202.
Feb. 28, 2012	201202234678(1258856)	AAU		$20,000	Re-roof over existing membrane with SPF roofing materials-no tear off.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES EVALUATION

Review of materials on file at San Francisco Heritage and the San Francisco Planning Department indicate that the subject property was found ineligible/not of interest to local planning as part of the 1968 Junior League Survey. The property was subsequently included in Appendix B of the 1995 Van Ness Area Plan, as a contributory building that possessed architectural qualities consistent with the prevailing characteristics of the more intact landmark buildings.[118] No other information was included about the subject property, and as of 2015, it does not appear to have been subject to intensive-level survey or evaluation.

As part of the current study, 2211 Van Ness Avenue was evaluated for eligibility for the California Register of Historical Resources (CRHR). In addition to meeting the applicable eligibility criteria, a property that qualifies for listing in the CRHR must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven aspects: Location, Design, Setting, Materials, Workmanship, Feeling, and Association (each aspect is defined in National Register Bulletin 15).

Although 2211 Van Ness Avenue is a pre-1906 Earthquake residential property on Van Ness Avenue, a rare resource within San Francisco, substantial alterations, including the addition of an additional bay and extensive replacement and reconfiguration of windows and doors on the primary façade have negatively affected the integrity of the property's design, workmanship, materials, association, and feeling. As a result, 2211 Van Ness Avenue no longer retains the character-defining features of a 19th century, Italianate residence along Van Ness Avenue. These alterations occurred within the last twenty years and based on archival research and site inspections, they have not acquired significance in their own right. Due to a lack of significant associations and historic integrity, the property does not appear eligible for the CRHR under any applicable criteria, either individually or as a contributor to a historic district.

ALTERATION SUMMARY

PRIMARY ELEVATION

Pre-AAU Alterations:

- Addition of southern bay between 1999 and 2005 (visual observation and historic maps and photographs)
- Replacement of windows and original doors prior to 2005 (visual observation and historic photographs)
- Removal of window surrounds prior to 2005 (visual observation and historic photographs)
- Removal of decorative bands above and below upper-level bay windows prior to 2005 (visual observation and historic photographs)
- Installation of awning prior to 2005 (visual observation and historic photographs)
- Installation of ADA ramp leading to primary (northern) entryway (visual observation and historic photographs)

[118] San Francisco Planning Department. San Francisco General Plan, Van Ness Area Plan. San Francisco Planning Department, San Francisco, 1995.

Post-AAU Alterations:

- Installation of security fencing along brick wall post 2005 (visual observation and historic photographs)
- Painted signage over an existing awning in 2005 (Permit 200804028568)

SECONDARY ELEVATIONS

Pre-AAU Alterations:

- Addition to east and west elevations at rear (west) in 1984 (Permit 840883)
- Addition to side, including front (1/3 of building near 2209 Van Ness Ave)
- Renovation of windows
- Reroofing in 2012 (Permit 201202234678)

INTERIORS

- Remodel of ground floor to provide bedrooms, bathrooms, and kitchens, to add full-height walls, baseboard heaters, and a shower (Permit 200702264852)
- Exploratory demolition work completed to fix a wall/deck at rear room (no structural work involved) (Permit 200903204570)

SWCA®
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

Part I and Part II Historic Resources Evaluation & *Secretary of the Interior's Standards* Project Review, 1727 Lombard Street, San Francisco, California

SWCA Environmental Consultants/Turnstone
330 Townsend Street, Suite 216, San Francisco, CA 94107

May 2016

This page intentionally left blank.

TABLE OF CONTENTS

FIGURES

APPENDICES

EXECUTIVE SUMMARY

Project Background

This Historic Resource Evaluation (HRE) was prepared by SWCA Environmental Consultants/Turnstone (SWCA) at the request of the Academy of Art University (AAU) in conjunction with the San Francisco Planning Department. This HRE forms part of the Existing Sites Technical Memorandum (ESTM) currently being prepared by SWCA for AAU. Prepared separately as a broader study, the ESTM includes historic resource evaluations (Part 1 HREs) for 26 AAU-owned and operated properties. Among these 26 properties, a total of 22 are Category A properties in the City and County of San Francisco (i.e., known historical resources) and 4 are Category B properties (i.e., properties of age but unevaluated).

Per the guidance of the San Francisco Planning Department, SWCA evaluations of the four Category B properties have been documented in comprehensive HREs meeting the requirements of the San Francisco Planning Department. These four HREs include evaluations of: (1) 1727 Lombard Street (Star Motel); (2) 1916 Octavia Street; (3) 1069 Pine Street; (4) 2340 Stockton Street. This HRE presents the results of the evaluation of 1727 Lombard Street.

Properties that were found eligible as historical resources pursuant to San Francisco Planning Department policy and the California Environmental Quality Act (CEQA) have been carried forward for Part 2 HREs, for project-level analysis of compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (*Secretary's Standards*), as well as San Francisco Planning Department guidelines for historic properties (including for Article 10 Historic Districts and Article 11 Conservation Districts). Where past alterations to the properties were found in noncompliance with the *Secretary's Standards* and/or San Francisco Planning Code Article 10/Article 11 guidelines, recommendations for project modifications have been made, in order to facilitate compliance with the *Secretary's Standards* and San Francisco Planning Department policy. The analysis of alterations included the exterior of the properties, both on primary and secondary elevations, and interior spaces that were historically accessible by the public.

Project Team

The four extended HREs of Category B properties were compiled and prepared by architectural historian Shayne Watson and coauthored by Ms. Watson, Debi Howell-Ardila (SWCA Senior Architectural Historian) and Steven Treffers (SWCA Architectural Historian). Research assistance was provided by SWCA architectural historians Natalie Loukianoff and David Greenwood. Senior oversight and review were provided by Ms. Howell-Ardila and Dr. John Dietler, California Cultural Resources Program Director.

Findings

The former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criterion 1 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The Star Motel and the broader thematic historic district reflect a noteworthy mid-century shift in the character of Lombard Street, catalyzed by the completion of the Golden Gate Bridge in 1937. Along with Park Presidio Boulevard (State Route 1), the Lombard Street corridor (U.S. Route 101) from Van Ness Avenue at the east to Richardson Avenue at the west was a principal thoroughfare for interstate traffic heading to and from the Golden Gate Bridge. This development pattern, coupled with subsequent widening and redevelopment of Lombard Street beginning in 1941, brought a dramatic increase in tourist traffic to Lombard Street. This triggered both the need for—and demand for—traveler- and car-friendly motels along the corridor. This significant pattern of development had a direct and still discernible effect on the character of these 13 blocks of Lombard Street, as seen in its concentration of tourist motels.

The former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criterion 3 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The property embodies the distinctive characteristics of a unique type and period of architecture in San Francisco: mid-century-era tourist motels. The Star Motel exhibits many of the character-defining features of tourist motels constructed in the city during this period: U- and L-shaped wings surrounding a central motor court; two-story massing; open galleries and stairs facing motor court, with rooms opening off galleries; deep, overhanging roof eaves over walkways; period details, including brick dado walls; and a neon blade sign.

Therefore, the former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criteria 1 and 3 as a contributor to a potential thematic historic district of tourist motels, centered at (and extending two blocks beyond) Lombard Street. This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district.

PART I: SIGNIFICANCE EVALUATION

INTRODUCTION

The subject property is located at 1727 Lombard Street near the corner of Lombard and Octavia Streets. The building is located within the within the Marina neighborhood. The Assessor's Parcel Number (APN) is 0506036. The lot size is 25,465 square feet. The building is located within N-3 (Neighborhood Commercial, Moderate Scale) and RH-2 (Residential-House, Two Family) zoning districts. Academy of Art University acquired the property in 2007.

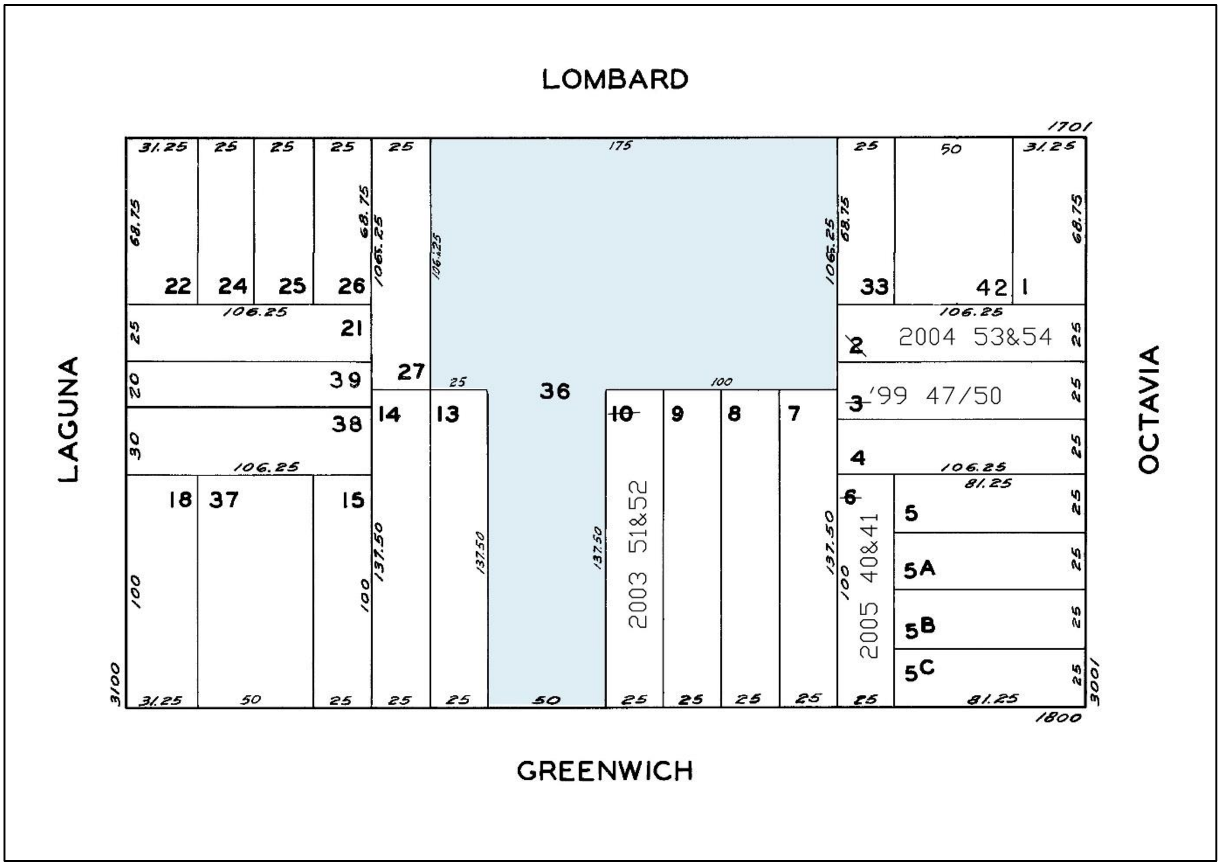


Figure 1. Project Location, Assessor's Parcel Map, City and County of San Francisco. The blue polygon marks the location of 1727 Lombard Street. Source: City and County of San Francisco, edited by author, 2016.

Figure 2. Project Vicinity. Blue polygon marks the location of 1727 Lombard Street, in Pacific Heights. Source: City and County of San Francisco Property Information Map, 2016.

Current Historic Status

The property is a "Category B" property, a property that is age-eligible but has not yet received a CEQA historical resource status. According to records on file with the San Francisco Planning Department, the property has not been previously surveyed.

Adjacent Historical Resources

There are no known historical resources adjacent to 1727 Lombard Street or within a radius of one block.

ARCHITECTURAL DESCRIPTION

General

The subject property is a large irregularly shaped midblock parcel that faces Lombard Street and has a through-lot connection to Greenwich Street. A large motor court is located in the center of the property and is ringed by two wings of guest rooms (east and west wings) with a third wing extending south through the block (south wing). All three wings are two stories.

The east wing has a reverse "L"-shaped footprint, and the west wing has an upside down "L"-shaped footprint. There is no setback, and these wings directly abut the front (Lombard Street) and side lot lines. The south wing has a rectangular footprint that fills most of the through-lot parcel but is set slightly back from Greenwich Street.

A freestanding "Star Motel" neon blade sign is located on Lombard Street at the automobile entrance to the motor court. A low stucco wall with brick end piers divides the motor court from the Lombard Street sidewalk. A second "Star Motel" sign is mounted on the wall. The freestanding sign was moved to its current location in 1960 and the neon replaced in 1992; the wall sign was most likely added in 1960 as well (Star Motel Postcard). A planting bed is located in front of the wall. A modern metal fence with automobile and pedestrian gates flanks and tops the wall and spans between the east and west wings along Lombard Street. The motor court is paved with asphalt and is divided by planters and low plaster columns with globe lights.

All of the original steel windows have been replaced with vinyl sliding windows with false muntins. Configurations include: tripartite window with a central fixed sash and sliding sash on either side, one-over-one sash with obscure glazing, and two-part sliding sash. Air-conditioning units have been installed below many of the windows. Modern metal sconces have been mounted on the walls.

Overall, the motel conveys the Midcentury Modern style with features such as: stacked brick dadoes, projecting cornice with board-and-batten siding, flat roofs, deep eaves, wraparound galleries, corner window, open riser stairways, neon sign, and wall sign.

Figure 3. Contextual view of Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

East Wing

The property's east wing was constructed in 1953. The walls of the wood-frame building are clad in cement plaster on the street and motor court facades and wood drop siding on side facades. At the north and west facades along Lombard Street, there are stacked brick dadoes. Intersecting gable and hipped roofs clad in Spanish clay tile top this wing. The north façade, which faces Lombard Street, is utilitarian in character and features three windows at the first floor: a tripartite, a one-over-one, and a two-part sliding. At the second floor, there are two tripartite windows flanking a small one-over-one window. Around the corner, on the west façade, there is an external plaster-clad chimney that extends above the roofline. A steel door with metal vent is located north of the chimney, and a fixed window is located south of the chimney.

At the interior (motor court) side of this wing, there is a second-floor, cantilevered, wraparound gallery sheltered by the main roof. The gallery roof is supported by simple square posts (material unknown) and lintels and is surrounded by metal railings, a post-1957 alteration (Star Motel Postcard). On the north side of the motor court, there is a one-story bay window. On the south side, an exterior, steel, open-riser stairway leads to the wraparound gallery. At the southwest end of the building, there is a two-story projection topped by a hipped roof; there are tripartite windows on both the first and second floors of the projection. Typical of motels, the fenestration pattern of the building's motor court side is repetitive and consists largely of two tripartite windows alternating with two guest room doors.

Figure 4. Eastern wing (1953), Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

West Wing

The west wing was constructed in 1960 by the architectural firm Skidmore & McWilliams (building permit). The west wing is more stylistically developed than the east wing. A flat roof with deep eaves tops the building, and simple molding is located at the intersection of the eaves and walls. The walls are presumably wood frame and appear to be clad in cement plaster. At the north end of the wing, which faces Lombard Street, the second floor is surrounded by a projecting cornice clad in vertical, closely spaced, board-and-batten siding; this gives the façade the appearance of a one-story building. At the first floor, there is a multi-paned wood-frame corner window that wraps from the north façade to the east. In addition, on the north façade west of the corner window, there are two tripartite windows. A neon "Office" sign is mounted on the wall. A low planting bed lines this façade at the sidewalk.

At the interior (motor court) side of this wing, there is a second-floor, cantilevered, wraparound gallery sheltered by the main roof. The wraparound gallery has simple square posts and is surrounded by a metal railing. The fenestration pattern of the motor court side of the building is repetitive and consists largely of two tripartite windows alternating with two guest room doors.

Figure 5. West and south wings (1960) Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

South Wing

The south wing was constructed in 1960 (building permit). A flat roof with deep eaves tops the building, and exposed beams are visible. The walls are concrete block at the first floor, and cement plaster, likely over wood-frame, at the second. A simple molding wraps the walls below the eaves on most facades. This long rectangular wing is composed of a parking garage on the first floor with entrances on the north to the motor court and on the south to Greenwich Street. At the second floor, an open corridor runs the length of the building with guest rooms on either side. The fenestration pattern is repetitive typical of motels and consists largely of pairs of two-part sliding windows alternating with single doors.

At the north façade, there are no window or pedestrian doors, just the garage entrance and open corridor. A second-floor wraparound gallery and an open-riser, concrete-and-steel stairway connect this wing to the east wing, west wing, and motor court. Both the stairway and wraparound gallery have metal railings that match those of the east and west wings.

The south façade, which faces Greenwich Street, is similar in composition to the north façade: at the first floor there is an automobile entrance. At the west end, an open-riser concrete-and-steel stairway with metal railing leads to the second floor open corridor. A modern metal security gate is located at the top of the stairway. The floor of the corridor projects to create a landing for the stair; the landing is supported by steel pipes.

Figure 6. Office wing, Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

Figure 7. Rear (south) façade, Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

Figure 8. Signage, Star Motel, 1727 Lombard Street, 2015 (Source: SWCA).

SITE HISTORY

Prior to the construction of the Star Motel at 1727 Lombard Street, the subject property contained dwellings and flats and, later, an automobile garage. The Star Motel was constructed in 1953 by the Commercial Construction Company, an entity that shared the same Daly City address as the property's original owners, the Star Motel Company. Two stories in height and U-shaped in plan, the Star Motel originally displayed a utilitarian design, with Spanish Colonial Revival and Minimal Traditional-style influences. An expansion of the motel in 1960 added two buildings to the west and south of the original building. Also two stories in height, the new south and west buildings, which reflect a modernist influence, were designed by San Francisco architects L.H. Skidmore & J.M. McWilliams.

Known alterations to the Star Motel since its construction in 1953 include the following:

- Addition of a six-inch-high neon sign reading "PHONES" to existing double-face, vertical blade sign, 1954 (permit no. 182162);
- Addition of 26 new living quarters in two connected buildings. Proposed use lists: motel and apartments, 1960 (permit no. 231081);
- Relocation of vertical blade sign approximately 30 feet to the west, 1960 (permit no. 211786);
- Removal of 2x3 decorative framing on south side of building (building location unknown), 1976 (permit no. 407759);
- Re-roofing at "front west building," 1989 (permit no. 628971);
- Alteration of vertical blade sign; neon tubing replaced, letters reading "Star & TV" removed, 1992 (permit no. 694187);
- Raised concrete and added 12'x48" wide (unknown) outside building, 2001 (permit no. 952225);
- Re-roofing, 2002 (permit no. 200201297969);
- ADA-compliance project, including alterations to rooms, parking area, lobby counter, and night drop, 2003 (permit no. 989983);
- Alteration to guest registration counter, 2004 (permit no. 014270);
- Windows replaced with vinyl windows, pre-2007 (no permit, observation based on pre-AAU photos); and
- Addition of security gates and garage doors, 2008 (permit no. 1162593).

The following Sanborn Fire Insurance Maps, historic photographs, and historic aerial images present a visual overview of the property's construction chronology. Following the figures, Table 1 lists all permitted alterations to the subject property.

Figure 9. Postcard image of Star Motel, 1727 Lombard Street, 1957 (Source: CoardCow.com).

Figure 10. Matchbook image of Star Motel, 1727 Lombard Street, 1950s (Source: Ebay).

Figure 11. Matchbook image of Star Motel, 1727 Lombard Street, 1950s (Source: Ebay).

Figure 12. Historic photograph of Star Motel, 1727 Lombard Street, c. 1970s (Source: Playle.com).

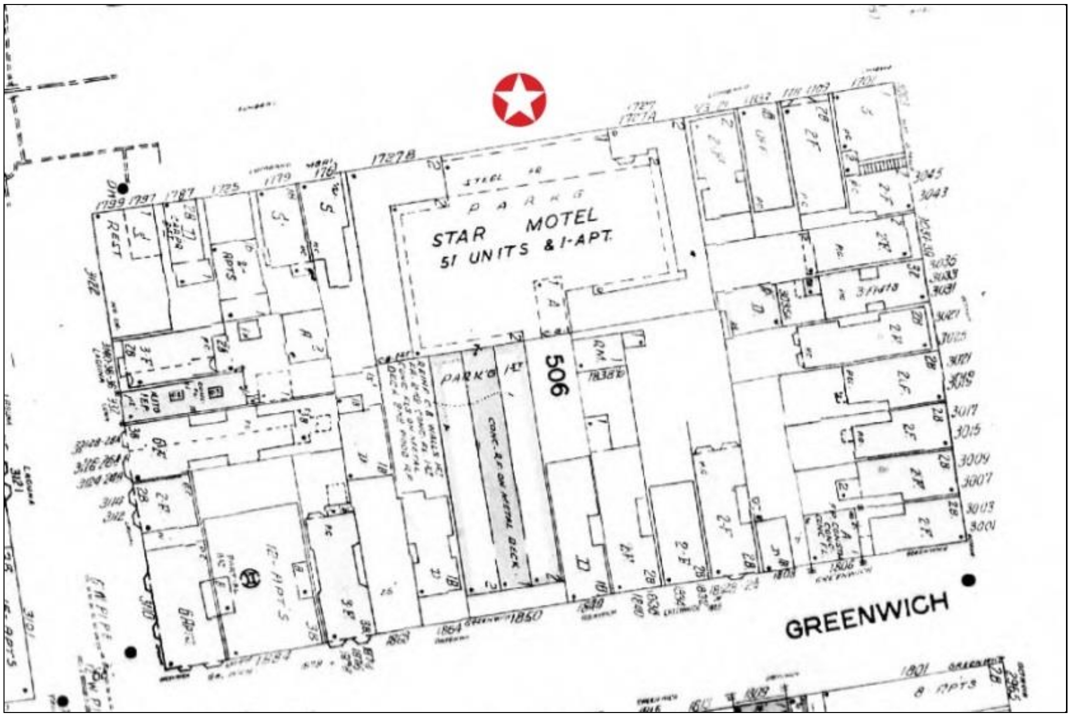


Figure 13. 1968 Sanborn Fire Insurance Map, 1727 Lombard Street. Source: Environmental Data Resources, 2015.

Figure 14. 1974 Sanborn Fire Insurance Map, 1727 Lombard Street. Source: Environmental Data Resources, 2015.

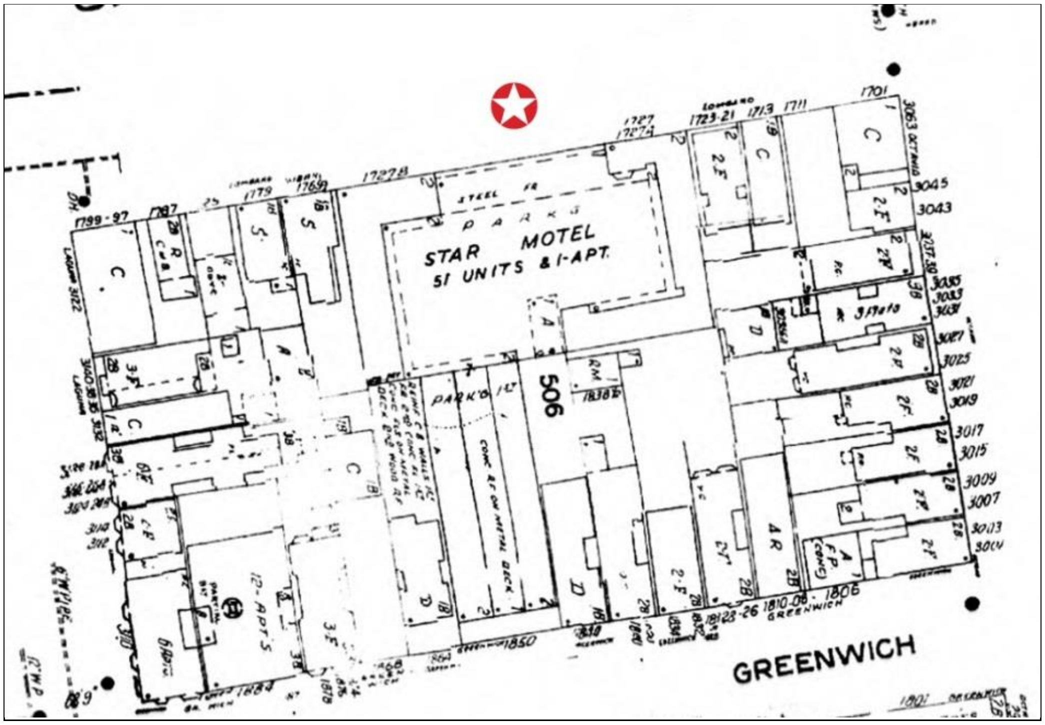


Figure 15. 1990 Sanborn Fire Insurance Map, 1727 Lombard Street. Source: Environmental Data Resources, 2015.

TABLE 1 BUILDING PERMITS, 1727 LOMBARD STREET

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 16, 1952 (Jan 23, 1953)	137089 (151867) (4437)	Star Motel	Commercial Construction Co. (no architect listed)	$45, 000	Construct a two-story motel building, twenty ft. height, with 4,000 sq. ft.
Jan. 31, 1956 (Feb. 6, 1954)	182162	Star Motel		$46	To add 6 inch high neonized letters reading "PHONES" to existing double face vertical sign.
Dec. 14, 1959 (Mar. 1, 1960)	231081 (208879)	Star Motel (Joe Padilla & Edmund Belforte)	Skidmore & McWilliams; L.H. Skidmore	$158,000	Add 26 new living quarters in two connected buildings. Proposed use lists: motel and apartments.
Jan. 20, 1960	232033	Star Motel (Joe Padilla & Edmund Belforte)	L.H. Skidmore	$1,750	Grading permit for lots #11, 28, and 29.
May 19, 1960 (June 13, 1960)	211786	Star Motel		$250	To move existing double face vertical sign and poles approx. 30 ft. west.
Feb. 9, 1976	407759	Star Motel (Edmund Belforte)		$800	Remove existing false 2x3 decorative framing south side of building.
Feb. 17, 1976	407984	Star Motel (Edmund Belforte)		$1,000	Remove and repair dry rot at deck.
Nov. 28, 1989	628971 (8921526)	Star Motel (Bob Padilla)		$12,595	Reroofing permit for "front west building."
Mar. 23, 1992	694187	Star Motel		$4,000	Alt. for "Star Motel" sign. Replace neon tubing, letters, and remove old top section of sign reading "Star & TV."
Oct. 31, 2001	952225	Star Motel		$2,200	Raise concrete and add 12 feet long by 48" wide outside building

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 29, 2002	S.F. Property Info Permit: 200201297969	Star Motel		$8,500	Re-roofing
Mar. 19, 2003	989983	Star Motel (Marita Deduct)	C. Swason	$25,000	ADA compliance: units, parking, lobby counter, and night drop.
Jan. 7, 2004	1014270	Star Motel (R. Padilla)		$1	Rework guest registration counter
Aug. 8, 2008	1162593	Academy of Art University	Shatara Architecture Inc.	$10,000	New security gates and garage doors on site.
Jan. 23, 2013	S.F. Property Info Permit: 201301238540	Academy of Art University		$1	To document change of use under planning code section 182 ©. from hotel to group housing.

FOCUSED NEIGHBORHOOD CONTEXT

Marina District

In their book, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (1986), historians William Issel and Robert Cherny identify seven distinct neighborhoods that existed or were developed in San Francisco from the mid-nineteenth century to World War I: South of Market, Mission District, Western Addition, Nob Hill-Pacific Heights, Chinatown, North Beach, and Downtown. Each neighborhood was distinct in terms of demographics and character.

The Marina District was surveyed in 1855-56 as part of the Western Addition survey. The San Francisco Planning Department provides a good overview of Marina Ditrict development history in the *Draft Neighborhood Commercial Buildings Historic Context Statement: 1865-1965*.

> The primary catalyst for sustained development of this area was the introduction of street railroads, which dramatically reduced travel times to and from downtown San Francisco. The principal line serving this area was the Presidio & Ferries Railroad, which opened in 1880. This was a multi-modal line which included a cable car running out Union Street to Steiner Street. There, it connected to a steam-powered train which ran west on Scott before turning north to Greenwich and then west into the Presidio—directly adjacent to [Lombard Street].
>
> During the late 19th century, much of this area remained sparsely developed, although a few industrial facilities were constructed in the vicinity, as well as a popular weekend resort known as Harbor View Park. The neighborhood largely escaped damage during the 1906 earthquake and fires, although a brief period of punctuated infill occurred in the wake of the disaster as displaced residents relocated to the area. More numerous, however, are buildings constructed during the 1910s. These are almost certainly associated with the development of the Panama Pacific International Exhibition (PPIE), opened in 1915 in what is today the Marina neighborhood. Construction for the PPIE began in 1912, and included widespread filling of the tidal marshlands, as well as the removal of nearly all buildings north of Chestnut Street.
>
> The PPIE opened in February 1915, celebrating both the completion of the Panama Canal and San Francisco's recovery from the Earthquake. Over 18 million visitors came to the fair over the course of the year, and one of the buildings, the "Inside Inn" hotel, was located directly north of [Lombard Street]. Following the fair, the land was redeveloped as the Marina neighborhood during the 1920s. Aside from various infill projects during the 1930s, the neighborhood remained largely unchanged until circa 1950, when areas along Lombard Street were increasingly redeveloped with commercial properties oriented toward automobile tourism. This was a direct result of Lombard Street serving as one of the primary access routes to the Golden Gate Bridge, which had been completed in 1937.[1]

Architectural historian Christopher VerPlanck summarizes the development of Lombard Street after 1937 in a Historic Resource Evaluation for 2346 Lombard Street:

> The completion of the Golden Gate Bridge in 1937 put tens of thousands of vehicles on Lombard Street, the southern boundary of the Marina District. Originally a two-lane street, Lombard was widened to three lanes, with a center passing lane. This proved to be very dangerous and in 1941

[1] City and County of San Francisco, Planning Department. *[DRAFT] Neighborhood Commercial Buildings Historic Context Statement: 1865-1965.* Draft Document prepared for the 2012/2013 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department, 2013.

> the Department of Public Works condemned the properties on the south side of Lombard in order to widen the street from 68'-9" to 99'. This made it possible to construct a divided six-lane arterial suitable for funneling thousands of vehicles toward the bridge and in the opposite direction along what became part of U.S. Highway 101. As part of this project most of the buildings on the south side of Lombard Street were either demolished or moved back on their lots and the sidewalks narrowed on both sides of the street. The character of Lombard Street also changed, as many of the smaller residential properties were redeveloped with auto-serving businesses like hotels, restaurants, gas stations, and garages.[2]

1700 Block of Lombard Street

In 1893, the subject block was located in the middle of a relatively undeveloped area. The south side of 1700 block of Lombard Street (location of subject property) was filled with O'Connor's Grading camp and a small dwelling at the northeast corner. The grading camp had a bunkhouse with an attached kitchen and a handful of barns. The north side of the block had a complex comprised of a few small cabins and sheds. The blocks to the east and west were developed partially with single-family dwellings.

By 1899, O'Connor's Grading Camp was gone and the south side of the subject block had a scattering of single-family homes, flats, and outbuildings. The north side of the block was empty. The blocks to the east and west had become more fully developed with residences.

By 1913, the subject block at the south side was almost completely developed. There were saloons at the east and west corners, one- and two-story single-family dwellings, two-story flats, a blacksmith shop, and a storage building. The north side of the block was still empty.

The south side of the subject block remained mostly unchanged between 1913 and 1929. The north side of the block was finally developed, but only partially. There were two-story flats, and auto-repair shop, and at the corner a drugstore and saloon.

By 1950, the major change related to the subject block was that by this time Lombard Street had been widened to 100'. Buildings that existed before the street was widened were either demolished or rebuilt, or they were pushed back. The south side of the block still had mostly residences but also a few new commercial uses, including a 30-car garage at the subject property, constructed in 1928. The north side of the block by 1950 reflected Lombard Street's use as one of the two primary entrances to the Golden Gate Bridge. There was a gas station at the west corner, an auto-sales building at 1738 Lombard Street, and an auto-repair shop at 1732 Lombard Street. The block to the west had two gas stations, but a majority of the parcels on surrounding blocks continued to be dedicated to residential uses.

In 1968, the subject block contained the Star Motel (subject property) at 1727 Lombard Street and the San Francisco Motel to the north at 1770 Lombard Street. On the 1600 block to the east was the XXX Motel at 1650 Lombard Street. Other surrounding uses were primarily residential with some commercial.

The configuration of buildings on the subject remained largely unchanged through the 1990s. Building uses began to change in the c. 1980s as some residential buildings took on commercial uses.

OWNER HISTORY

The Star Motel was located at 1727 Lombard Street from 1953, when the building was constructed, through 2007, when Academy of Art University acquired the property. One of the earliest known names associated

[2] Christopher VerPlanck, "Historic Resource Evaluation, 2346 Lombard Street, San Francisco, California," (April 2015), 14.

with the Star Motel at 1727 Lombard Street is Chester W. Warringston. Warrington, listed alongside the Star Motel in a city directory, was either the owner or the manager (no information was found to verify this). Other names associated with the property are Joe Padilla (1959-1960), Edmund Belforte (1959-1976), and Alice L. Murphy (1985-1990). It is not known if Padilla, Belforte, or Murphy were owners, managers, or employees at the Star Motel.

Table 2 presents data available in city of San Francisco directories for all known owners and occupants of the property.

TABLE 2 OWNER/OCCUPANT HISTORY

2300-2380 Stockton Street		
Date	Name	Source
1953-2006	Star Motel	R.L. Polk & Company/ Pacific Telephone/Pacific Bell/Haines & Company
2007-Present	Academy of Art University	AAU

LOMBARD STREET MOTEL HISTORY

History of the Tourist Motel

The development of the motel (also called automobile courts, tourist courts/havens, and cabins) coincides directly with the increasing popularity of the automobile in the 1920s and the introduction of new highways and freeways from the 1940s to 1960s.

California's first motel—and the first in the country—was built in San Luis Obispo in 1925.[3] Designed by architects Arthur and Alfred Heineman, the Milestone Mo-Tel was intentionally located in San Luis Obispo because it was the midpoint between Los Angeles and San Francisco.[4] At that time, a drive across the state took two days—so drivers needing a break had few options for lodging outisde of campgrounds. The Milestone Mo-Tel—with its private indoor bathrooms, restaurant, laundry facilities, and store—was a revolutionary alternative. The San Luis Obispo motel was the prototype for an 18-motel chain that Heineman and his brother, Alfred, intended to build along the Pacific Coast from Southern California to Canada, providing travelers with overnight stops every 150-200 miles. Evocative of the California Mission system, the motels were to be designed in the Mission Revival style, popular throughout California from the 1920s to 1940s. Though the Heinemans' motel chain never materialized, Heineman's trailblazing concept of a "mo-tel" stuck.

Figure 16. Milestone Mo-Tel in San Luis Obispo, California's first motel. Source: *Los Angeles Times*.

After the Great Depression of the 1930s, the motel business began to grow. In the early 1940s, 70 percent of traveling motorists still opted for hotels, but after World War II the trend started to reverse.[5] From 1948

[3] For more on the Heinemans and motel history, see Christine Lazzaretto, "The Bungalow and the Automobile: Arthur and Alfred Heineman and the Invention of the Milestone Motel," Master's thesis, University of Southern California (2007), vi.

[4] Ibid.

[5] "These Marvelous Motels," *Challenge* 1.10 (1953), 6. Retrieved from http://www.jstor.org/stable/40717975.

to 1953, the number of motels in the United States nearly doubled from 26,000 to 45,000. A 1953 article in *Challenge Magazine* called "These Marvelous Motels" estimated the number of motor tourists in the United States to reach 66 million in 22 million cars, "exceeding even [1952's] record-breaking vacation throngs."[6] Seventy percent of traveling motorists stayed in motels by the early 1950s.

The primary reasons for the popularity of motels were affordability and convenience. For families on long road trips (in 1953, the average vacationing motorist traveled 1200 miles in 11 days), motels were a cheaper option than expensive hotels. They were also more convenient, located on strategically placed stopping points along long expanses of roadways. In cities such as San Francisco, motels, unlike hotels, were located away from downtown and on major arteries such as US Highway 101—allowing tourists to avoid congestion and high parking fees. Motels were also more attractive for families, as they lured guests with "extras" such as air-conditioning, pools, and playgrounds for children. Finally, motels offered a sense of freedom and privacy not found in hotels, a concept described by a motel operator in 1953: "A man who takes his wife and kids out for a weekend trip doesn't want to bother with going into a crowded city and marching his family—who are pretty mussed up after driving all day—through the lobby of a hotel. We save him all of that. And he can unload his luggage himself, and save the bell-boy's tip."[7]

History of Tourist Motels in San Francisco

The introduction of major new infrastructure projects in San Francisco from the 1930s to 1960s eased tourist traffic to and from the city and sparked the development of new automobile-related commercial buildings across the city, including dozens of motels.[8] San Francisco through the mid-1930s was accessible only by land from the south or water from the north, west, and east. Beginning in the late 1930s, the San Francisco–Oakland Bay Bridge (1936) and the Golden Gate Bridge (1937) suddenly provided easy direct access by car and passenger rail from the east and by car from the north. When completed in 1937, the Bayshore Freeway (U.S. Route 101) was the first freeway linking San Francisco to San José. Development of new infrastructure slowed in the 1940s but picked up again the following decade. By 1955, Interstate 280 provided a second direct route to San Francisco from San José. In 1959, State Route 480, which included the Doyle Drive skyway approach to the Golden Gate Bridge and the double deck Embarcadero Freeway skirting the Bay, established a route through the eastern and northern parts of the city.[9]

One of San Francisco's earliest motels was the 1937 Ocean Park Motel (2690 46th Avenue) near Ocean Beach (extant and still in operation under the same name).[10] The Ocean Park Motel was designed by Conrad Kett in the Sreamline Moderne style. Another early motel and the first motel on Lombard Street was the Spanish Colonial Revival Marina Motel at 2576 Lombard Street, constructed c. 1940. Capitalizing on the recent completion of the Golden Gate Bridge, the Marina Motel was constructed at the westernmost end of Lombard Street and advertised itself as being on the "Lombard entrance to the Golden Gate Bridge."

---

[6] Ibid.

[7] Ibid., 9.

[8] Mary Brown, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. Document prepared for the 2009/2010 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department (2011), 50.

[9] Excerpted from Donna Graves and Shayne Watson, *Citywide Historic Context Statement for LGBTQ History in San Francisco* (2015), 12.

[10] The Western Neighborhoods Project calls the Ocean Park Motel San Francisco's first motel. This section of history of motels in San Francisco is based on city directory research. In order to establish a comprehensive and accurate history of motels in the city, further research is recommended.

Beginning in 1941, R.L. Polk & Company's San Francisco City Directory first began including a business listing for "Motels and Automobile Courts"—an indicator of the growing popularity of this form of lodging. In addition to the Marina Motel and Ocean Park Motel, the 1941 directory includes a listing for a third motel in San Francisco: San Francisco Auto & Trailer Court (701 Sunnydale Avenue), a few blocks from the Bayshore Freeway (US Highway 101 bypass). This motel was part of a cluster of motels and auto courts that appeared in 1941 on Bayshore Boulevard, Geneva Avenue, and Mission Street (State Route 82, El Camino Real) in Daly City and Brisbane, the primary access points into San Francisco at the time.

Figure 17. Ocean Park Motel, 2690 46th Avenue, San Francisco (constructed in 1937, extant). Source: Western Neighborhoods Project.

Figure 18. Marina Motel, 2756 Lombard Street, San Francisco (constructed in 1940, extant). Source: Marina Motel's website.

Figure 19. E.B. Motel, 1201 Bayshore Highway, San Francisco (not extant). Source: 101Cafe.net.

By 1953, San Francisco's motels were numbering close to 10, seven of which were on Lombard Street in the Marina District (the stretch of Lombard west of Van Ness Avenue):

- Star Motel (1727 Lombard Street);
- San Francisco Motel (1750 Lombard Street);
- A-1 Motel (1940 Lombard Street);
- Penguin Motel (1990 Lombard Street);
- Bridge Motel (2524 Lombard Street);
- Murray's Golden Gate Motel (2555 Lombard Street); and
- Marina Motel (2756 Lombard Street).

Between 1955 and 1960, the number of motels in San Francisco doubled (tripled by 1975). Of the 58 that existed in 1960, half were on or near Lombard Street or the northern stretch of Van Ness Avenue. The names of many of the Lombard Street motels are indicative of efforts to highlight the street's association with the Golden Gate Bridge. Fitting within a broader pattern of tourism-related businesses capitalizing on the nations' obsession with the exotic, motels also boasted tropical- or foreign-sounding names, such as:

- Rancho Lombard Motel (1501 Lombard Street);
- Motel Playa (1650 Lombard Street);
- Surf Motel (2265 Lombard Street);
- Sea Captain Motel (2322 Lombard Street);
- Lanai Motel (2361 Lombard Street);
- Sands Motel (2440 Lombard Street);
- Amigo Motel (2630 Gough Street);

- Motel Capri (2015 Greenwich);
- Plantation Inn (3100 Webster);
- Bel-Aire Motel (3201 Steiner); and
- Holland Motel (1 Richardson Street).[11]

From the 1950s to 1960s, many motels appeared throughout San Francisco, but particularly in growing tourist areas such as Ocean Beach, Fisherman's Wharf, Civic Center, and Market Street. Motels also appeared around major feeder roads into and out of San Francisco, such as Park Presidio Boulevard leading to/from the Golden Gate Bridge, Van Ness Avenue, and streets around exits off of Interstate 80 leading to/from the Bay Bridge, especially in South of Market between 5th and 10th Streets.

The number of motels on or around Lombard Street in the Marina District seem to have plateaued at around 25 beginning in 1960 and lasting through at least the early 1980s. Of those motels, 22 are extant and 21 are still operating as motels/hotels (the one exception is the Star Motel, now used by Academy of Art University as housing). Historic motels constructed between 1940 and 1968 still exist on almost every block of Lombard Street between Van Ness Avenue at the east and Lyon Street at the west. The stretch of Lombard Street and surrounding blocks contains the most cohesive collection of historic motels in San Francisco.

The following is a sampling of extant motels on or within two blocks of Lombard Street in San Francisco. The figures are followed by Table 4, which presents information about all extant motels on Lombard Street. See Appendix A for a sampling of extant 1950s and 1960s motels located outside of the Lombard Street area.

[11] For more on the history of exoticized tourism in San Francisco, see Graves and Watson, 54-58.

Lombard Plaza Motel (2016 Lombard Street), Constructed 1955

Figure 20. Lombard Plaza Motel, c. 1960s. Source: Amazon.com.

Figure 21. Lombard Plaza Motel, 2016. Source: SWCA.

Surf Motel (2265 Lombard Street), Constructed 1959

Figure 22. Surf Motel, c. 1959. Source: CaliforniaBeaches.com.

Figure 23. Surf Motel, 2015. Source: Google.

Lanai Motel/Presidio Inn (2361 Lombard Street), Constructed 1959

Figure 24. Lanai Motel, c. late 1950s/early1960s. Source: Critiki.com.

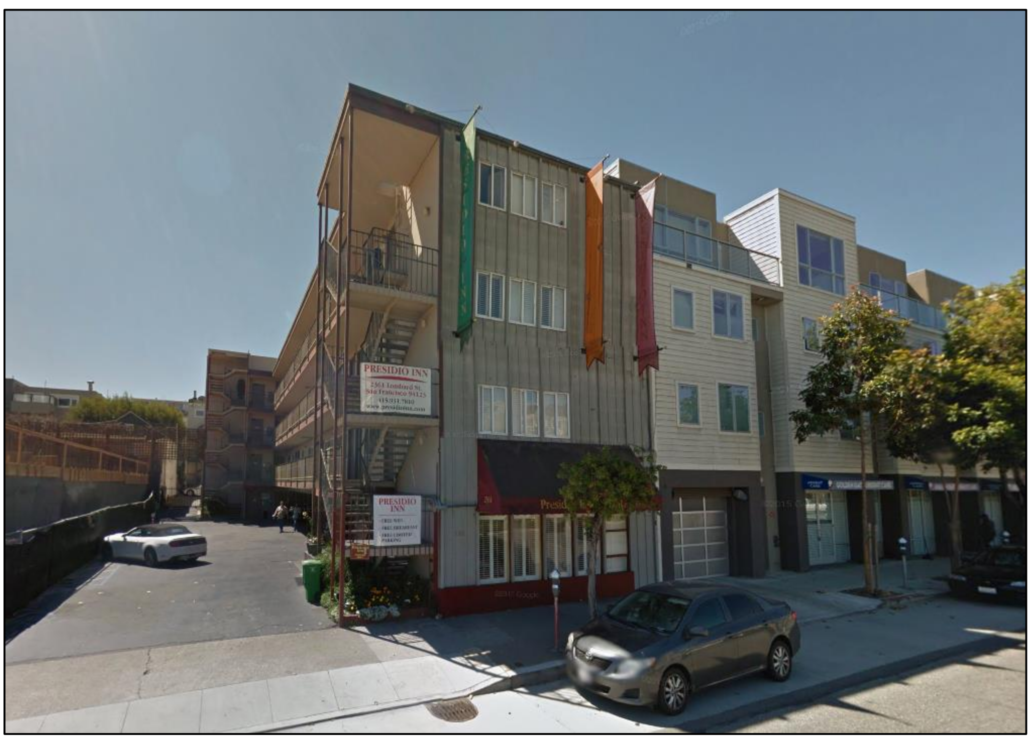


Figure 25. Presidio Inn, 2015. Source: Google.

Presidio Travelodge (2755 Lombard Street), Constructed 1955

Figure 26. Presidio Travelodge, c. late 1960s. Source: Amazon.com.

Figure 27. Presidio Travelodge, 2016. Source: Google.

Motel Capri (2015 Greenwich Street), Constructed 1957

Figure 28. Motel Capri, c. late 1950s/early 1960s. Source: SanFranciscoDays.com.

Figure 29. Motel Capri, 2016. Source: SWCA.

Holland Motel/Knight's Inn (1 Richardson Street), Constructed 1952

Figure 30. 1 Richardson Street, c. 1950s. Source: CardCow.com.

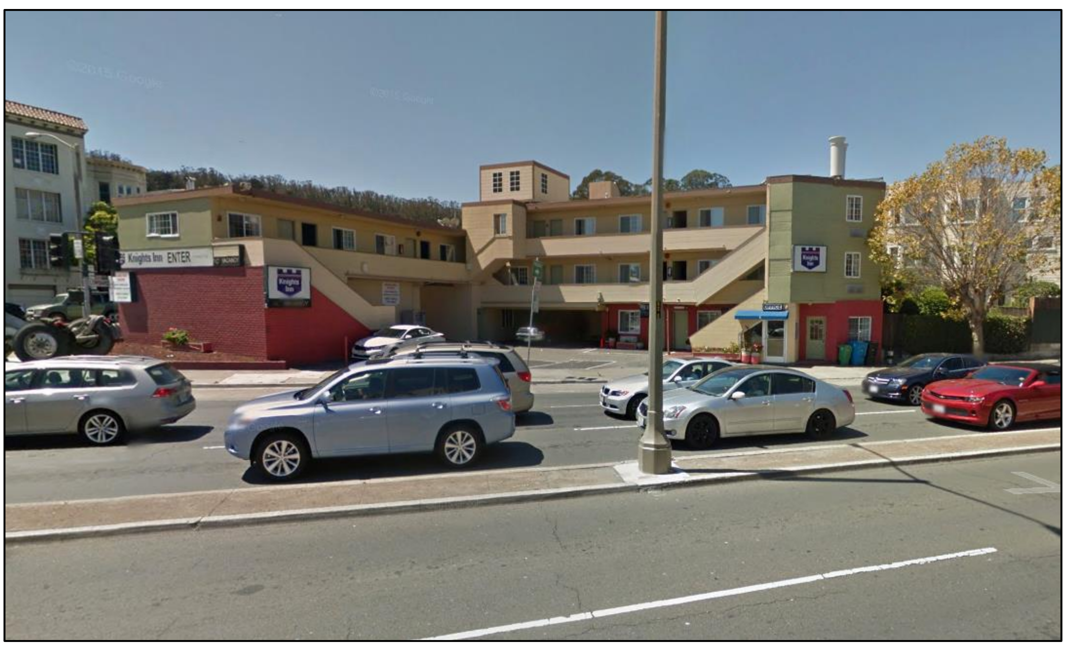


Figure 31. 1 Knight's Inn, 2016. Source: Google.

Plantation Inn/Hotel del Sol (3100 Webster Street), Constructed 1956

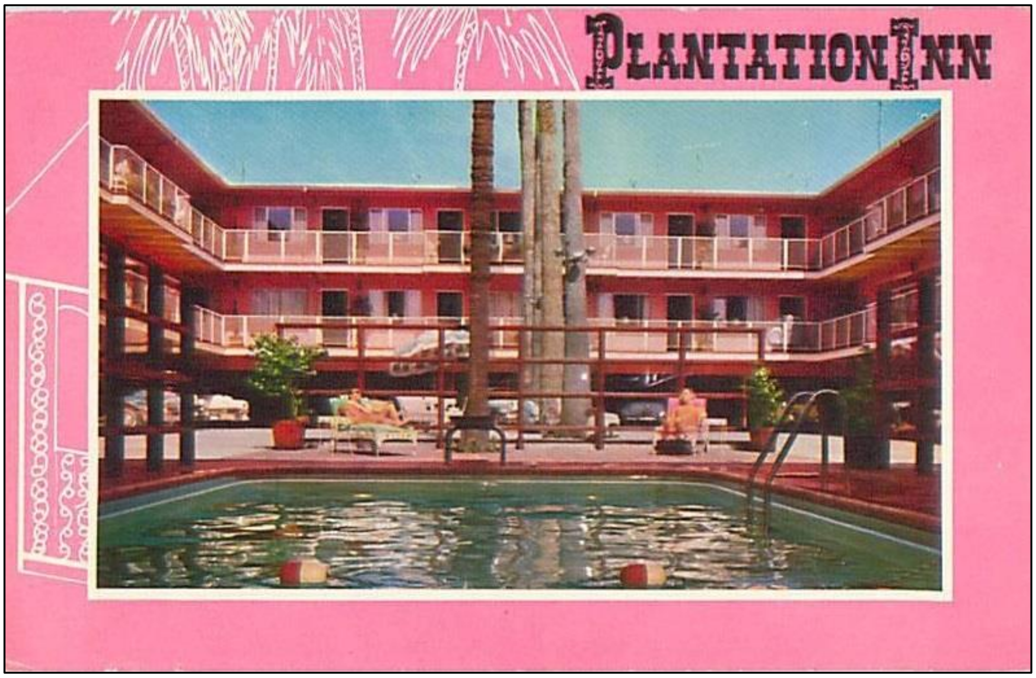


Figure 32. Plantation Inn, c. 1970s. Source: Delcampe.net.

Figure 33. Hotel del Sol, 2016. Source: SFTodo.com.

TABLE 3 HISTORIC LOMBARD STREET MOTELS

Address	Historic/Current Name	Construction Date	Planning Department Notes (from Commercial Survey)
2576 Lombard Street	Marina Motel	1940	Constructed just a few years after the opening of the Golden Gate Bridge, the Marina Motel is the most intact of the early motels along the Lombard Street NC-3 corridor. It features an unusual courtyard plan with blocks of rooms lining narrow alleyways.
1750 Lombard Street	San Francisco Motel/Sea Side Inn	1946	
2555 Lombard Street	Murray's Golden Gate Motel/La Luna Inn	1951	
1 Richardson Street	Holland Motel/Knight's Inn	1952	
1727 Lombard Street	Star Motel/AAU	1953	There are numerous motels along the Lombard Street NC-3 corridor, but the Star Motel is a particularly intact example of Midcentury design.
2440 Lombard Street	Sands Motel/Super 8	1953	
1501 Lombard Street	Rancho Lombard/Francisco Bay inn	1954	
1650 Lombard Street	Motel Playa/Town House Motel	1954	
2230 Lombard Street	Golden Gate Travelodge/Travel Inn	1954	
2322 Lombard Street	Sea Captain's Motel/America's Best Value	1954	

Address	Historic/Current Name	Construction Date	Planning Department Notes (from Commercial Survey)
3201 Steiner Street	Bel Aire Motel/Greenwich Inn	1954	
2026 Lombard Street	Lombard Plaza Motel	1955	The Lombard Plaza Motel is a highly stylized example of Midcentury Modern design, and also deviates from the typical form seen elsewhere along the corridor.
2707 Lombard Street	Golden Gate City Motel/Country Hearth Inn	1955	
2755 Lombard Street	Presidio Travelodge	1955	
2358 Lombard Street	Manor Motel/Days Inn	1956	
3100 Webster Street	Plantation Inn/Hotel del Sol	1956	
2015 Greenwich Street	Motel Capri	1957	This is the most high-style, fully realized Midcentury Modern motel in the Lombard Street NC-3, and potentially in the city of San Francisco.
2599 Lombard Street	Motel DeVille/La Luna Inn	1957	
2265 Lombard Street	Surf Motel	1959	
2361 Lombard Street	Lanai Motel/Presidio Inn	1959	
2505 Lombard Street	Alfa Inn Motel/Alpha Inn & Suites	1960	
1450 Lombard Street	Doyle Motel/Cable Motel/Travelodge by the Bay	1968	

ARCHITECT/BUILDER

Commercial Construction Company (1953 Building)

The architect of the original Star Motel at 1727 Lombard Street is unknown (no architect was listed on the building permit). The building's contractor was the Commercial Construction Company. The Commercial Construction Company shared the same Daly City address as the Star Motel's original owners, the Star Motel Company. Research revealed nothing else about the Commercial Construciton Company.

L.H. Skidmore (Skidmore & McWilliams) (1960 Building)

The architect of the 1960 addition to the Star Motel at 1727 Lombard Street was L.H. Skidmore of Skidmore & McWilliams. Ira S. Kessey was the engineer.

Lorimer H. Skidmore (1906-1978) was born in Berkeley, California in 1906.[12] His father, Charles H. Skidmore, was an architect with offices in San Francisco. Skidmore attended U.C. Berkeley in the 1930s.[13] One of his first positions was as a draftsman in Berkeley in the mid-1930s.[14] By 1940, Skidmore was an architectural draftsman with the National Park Service.[15] He died in Berkeley in 1978.[16]

Primary and secondary source research revealed limited information about Skidmore & McWilliams; they do not appear to have been notably prolific in San Francisco or the greater Bay Area.

CALIFORNIA REGISTER SIGNIFICANCE EVALUATION

The CRHR is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.

---

[12] Ancestry.com. *U.S., School Yearbooks, 1880-2012* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010.

[13] Ancestry.com. *U.S., School Yearbooks, 1880-2012* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010.

[14] Ancestry.com. *U.S. City Directories, 1822-1989* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2011.

[15] Ancestry.com. *1940 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2012.

[16] Ancestry.com. *U.S., Social Security Death Index, 1935-2014* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc., 2011.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting – the physical environment of a historic property;
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time;
7. Association – the direct link between an important historic event or person and a historic property.

Resources eligible for the NRHP, under the corresponding Criteria A, B, C, and D, are automatically listed in the CRHR.

Evaluation, Criterion 1

The former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criterion 1 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The Star Motel and the broader thematic historic district reflect a noteworthy mid-century shift in the character of Lombard Street, catalyzed by the completion of the Golden Gate Bridge in 1937. Along with Park Presidio Boulevard (State Route 1), the Lombard Street corridor (U.S. Route 101) from Van Ness Avenue at the east to Richardson Avenue at the west was a principal thoroughfare for interstate traffic heading to and from the Golden Gate Bridge. This development pattern, coupled with subsequent widening and redevelopment of Lombard Street beginning in 1941, brought a dramatic increase in tourist traffic to Lombard Street. This triggered both the need for—and demand for—traveler- and car-friendly motels along the corridor. The earliest motel built on Lombard Street was the

Marina Motel at 2576 Lombard Street, constructed in 1940. Between 1955 and 1960, the number of motels in San Francisco doubled (tripled by 1975). Of the 58 that existed in 1960, half were on or near Lombard Street or the northern stretch of Van Ness Avenue. This significant pattern of development had a direct and still discernible effect on the character of these 13 blocks of Lombard Street, as seen in its concentration of tourist motels.

The following is a list of extant motels on Lombard Street that have been identified as potential contributors to a potential thematic historic district of 1940-1960s tourist motels on Lombard Street. This list should be viewed as preliminary. Further research on Lombard Street motels is recommended.

- Marina Motel, 2576 Lombard Street (1940)
- Murray's Golden Gate/La Luna Inn, 2555 Lombard Street (1951)
- Holland Motel/Knight's Inn, 1 Richardson Street (1952)
- Star Motel, 1727 Lombard Street (1953)
- Golden Gate Travelodge/Travel Inn, 2230 Lombard Street (1954)
- Bel Aire Motel/Greenwich Inn, 3201 Steiner Street (1954)
- Lombard Plaza Motel, 2026 Lombard Street (1955)
- Presidio Travelodge, 2755 Lombard Street (1955)
- Plantation Inn/Hotel del Sol, 3100 Webster Street (1956)
- Motel Capri, 2015 Greenwich Street (1957)
- Motel De Ville/La Luna Inn, 2599 Lombard Street (1957)
- Surf Motel, 2265 Lombard Street (1959)
- Lanai Motel/Presidio Inn, 2361 Lombard Street (1959)
- Doyle Motel/Travelodge by the Bay, 1450 Lombard Street (1968)

This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district.

Evaluation, Criterion 2

The property at 1727 Lombard Street appears ineligible for listing in the CRHR under Criterion 2. It appears that none of the owners or managers of 1727 Lombard Street have made any significant contributions to local, state, or national history.

Evaluation, Criterion 3

The former Star Motel at 1727 Lombard Street appears to be eligible under CRHR Criterion 3 as a contributor to a potential thematic historic district of tourist motels constructed on Lombard Street in San Francisco from 1940 to the 1960s. The property embodies the distinctive characteristics of a unique type and period of architecture in San Francisco: mid-century-era tourist motels. The Star Motel exhibits many of the character-defining features of tourist motels constructed in the city during this period: U- and L-shaped wings surrounding a central motor court; two-story massing; open galleries and stairs facing motor court, with rooms opening off galleries; deep, overhanging roof eaves over walkways; period details, including brick dado walls; and a neon blade sign. The building also exhibits typical alterations present in many historic motels across San Francisco: replacement windows; replacement railings at galleries; modified paint scheme; security fencing; and altered signage. However, in spite of these alterations, the property retains features important at a district level, such as original massing, configuration, and central motor court.

This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district.

INTEGRITY

1727 Lombard Street

The property at 1727 Lombard Street has undergone some major and minor alterations. The most significant alteration was the addition of the west wing of buildings in 1960. That year, the neon blade sign was moved 30 feet the west and altered. All historic windows were replaced at an unknown date (pre-2007). Other alterations include: replacement of decorative railings at the galleries; removal of some decorative wall materials; addition of security gates and fencing (2008). The property's 1960 configuration and massing remain the same. The majority of the surrounding buildings on the 1700 block of Lombard Street date to the 1900-1950 period, though some recent infill has occurred.

The property at 1727 Lombard Street retains moderate to high integrity of location, setting, feeling, design, and association. Integrity of workmanship and materials has been compromised somewhat by removal of historic materials, including windows. Integrity of setting is generally good, but some new infill buildings detract from the 1953-1960 appearance of the block.

The property at 1727 Lombard Street meets the integrity thresholds for a property determined eligible under CRHR Criteria 1 and 3 as a contributor to a potential thematic historic district of 1940s to 1960s motels on Lombard Street in San Francisco.

Potential Thematic Historic District of 1940s to 1960s Tourist Motels on Lombard Street

Historic 1930s to 1960s motels in San Francisco can be found throughout San Francisco, but the property type is relatively rare, especially examples with moderate to high integrity. The Lombard Sreet corridor contains the most cohesive collection of extant tourist motels in the city.

Similar to other types of commercial buildings, owners of historic motels altered their properties over time to keep up with changing trends and styles or because of condition issues. Consequently, historic materials have been replaced. Keeping these things in mind, as well of the relative rarity of this property type, it is recommended that integrity of historic motels on Lombard Street should be viewed with more flexibility than is typical.

Typical alterations that have occurred to many motels include:

- Facades have been altered with new stucco and decorative features;
- Historic windows have been replaced with double- and triple-pane windows to reduce noise;
- Decorative railings have been replaced;
- Unique neon signage has been replaced with corporate, plastic signage;

- Awnings, security fences and gates have been added; and
- Historic paint schemes have been changed, brick and other historic materials have been painted.

This potential thematic district requires further intensive research and survey work required to identify a CRHR-eligible historic district. However, of the 22 motels surveyed (windshield level) for this HRE, integrity of location, design, setting, feeling, and association of the potential thematic district are intact. Integrity of workmanship and materials are not intact because of the typical alterations described above.

CHARACTER-DEFINING FEATURES

1727 Lombard Street

The following lists character-defining elements and features, as well as visible and known alterations:

General

- "L"-shaped wings
- Central motor court
- Two-story height
- Deep eaves sheltering open galleries
- Open-riser exterior stairways
- Repetitive fenestration pattern typical of motels
- Metal railings around galleries and stairways
- "Star Motel" neon blade sign
- "Office" neon sign
- Stucco and brick wall with "Star Motel" sign
- Planting beds

East Wing

- Intersecting gable and hipped roofs clad in Spanish clay tile
- Cement plaster cladding and wood drop siding
- Stacked brick dadoes
- External plaster-clad chimney

West Wing

- Flat roof
- Projecting cornice with board-and-batten siding
- Cement plaster wall cladding
- Corner window

- South Wing
- Flat roof with exposed beams
- Concrete block walls at first floor and cement plaster wall cladding at second floor [[need access to property to verify this]]
- Open parking garage entrances at north and south facades
- Open corridor

Potential Thematic Historic District of 1940s to 1960s Tourist Motels on Lombard Street in San Francisco

Character-defining features of 1940s to 1960s motels include:

- U-, C-, and L-shaped configuration of motel wings;
- Central motor court or parking underneath the motel rooms;
- Motels rooms face away from the street and toward motor court or parking area;
- Repetitive fenestration patterns typical of motels;
- Open galleries, stairs, and walkways;
- Planting beds; and
- Stucco, brick, and concrete block wall materials.

PART II: SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

SUMMARY OF SIGNIFICANCE

As described in Part 1, the property at 1727 Lombard Street appears to be eligible under CRHR Criterion 1 as a contributor to a potential citywide thematic historic district of motels constructed in San Francisco from the late 1930s to 1960s. The property is reflective of two major patterns of events that unfolded in San Francisco from the late 1930s to the 1960s: 1.) introduction of major new infrastructure projects that eased tourist traffic into and through the city, specifically the construction of the San Francisco-Oakland Bay Bridge (1936) and the Golden Gate Bridge (1937); and 2.) introduction of automobile-related tourist lodging across the city.

The property at 1727 Lombard Street appears to be eligible under CRHR Criterion 3 as a contributor to a potential citywide thematic historic district of motels constructed in San Francisco from the late 1930s to 1960s. The property embodies the distinctive characteristics of a unique type and period of architecture in San Francisco: tourist motels constructed from the late 1930s to 1960s.

SECRETARY OF THE INTERIOR'S STANDARDS ANALYSIS

As codified in 36 CFR 67, one recognized method for generally avoiding adverse effects to historic properties is following the Secretary of the *Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings (Secretary's Standards)*.[17] The *Secretary's Standards* offer guidelines and approaches for preserving, maintaining, repairing, and replacing historical materials and features, as well as designing additions or making alterations. Guidance is also provided for new construction adjacent to historic properties, in order to avoid adverse impacts to neighboring properties through a change in setting and feeling. In this way, the *Secretary's Standards* outline common-sense approaches that allow for the retention of and/or sensitive changes to the distinctive materials and features that lend a historical resource its significance.

State CEQA Guidelines Section 15126.4(b)(1) state that a project determined to conform with the *Secretary's Standards* can generally be considered to be a project that will not cause material impairment to a historical resource. Nonconformance with the *Secretary's Standards* does not uniformly result in material impairment to a historical resource. Some projects that do not comply with the *Secretary's Standards* do not cause a significant adverse impact. Project elements must be studied on a case-by-case basis, depending upon the resource and the reasons for its significance. However, projects that comply with the *Secretary's Standards* benefit from a regulatory presumption that they would have a less-than-significant adverse impact on historic resources.[18]

[17] Morton, W. Brown III, Gary L. Hume, Kay D. Weeks, and H. Ward Jandl, Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance Division, 1992). The Standards, revised in 1992, were codified as 36 CFR Part 68.3 in the July 12, 1995 Federal Register (Vol. 60, No. 133). The revision replaces the 1978 and 1983 versions of 36 CFR 68 entitled The Secretary of the Interior's Standards for Historic Preservation Projects.

[18] CEQA Guidelines subsection 15064.5(b)(3).

ANALYSIS OF ALTERATIONS CARRIED OUT BY ACADEMY OF ART UNIVERSITY

This section includes a description and analysis of all known alterations carried out by AAU on character-defining features and spaces for compliance with the *Secretary's Standards for Rehabilitation.*

The analysis is presented in two parts: first, a table format lists projects completed by AAU and their compliance with each of the Secretary's Standards. Second, a standard-by-standard analysis is provided in narrative form.

Secretary's Standards for Rehabilitation	Date of Alteration (source)	No. 1: A property will be used as it was historically or be given a new use that requires minimal change	No. 2: The historic character of a property will be retained and preserved.	No. 3: Each property recognized as a physical record of its time/place/use.	No. 4: Changes that have acquired historic significance retained/preserved.	No. 5: Distinctive materials/features, construction techniques to be preserved.	No. 6: Deteriorated historic features will be repaired rather than replaced.	No. 7: Chem./physical treatments = gentlest means possible.	No. 8: Archeological resources will be protected and preserved in place.	No. 9: New additions, ext. alterations, or related new constrxn will not destroy historic materials/features, spatial relationships	No. 10: New additions/adjacent new constrxn: if removed, essential form/integrity of historic property and its environment would be unimpaired.	Recommended Design Modifications to Facilitate SOIS Compliance
PRIMARY ELEVATION Known/Visible Exterior Alterations												
Security Fencing and Gates	2008	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes	None

Rehabilitation Standard No. 1: *A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.*

Security Fencing and Gates: The project does not involve a change in use that resulted in major changes to distinctive materials, features, spaces, and spatial relationships, and is therefore in compliance with Rehabilitation Standard No. 1.

Rehabilitation Standard No. 2: *The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 2. The introduction of fencing and gates does not negatively affect the historic character of the property.

Rehabilitation Standard No. 3: *Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historical properties, will not be undertaken.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 3. The security fencing and gates are clearly modern and do not result in a false sense of historical development.

Rehabilitation Standard No. 4: *Changes to a property that have acquired significance in their own right will be retained and preserved.*

Security Fencing and Gates: Rehabilitation Standard No. 4 is not applicable to this project.

Rehabilitation Standard No. 5: *Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 5. The property still retains the distinctive materials, features, and finishes that convey its historical significance.

Rehabilitation Standard No. 6: *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.*

Security Fencing and Gates: Rehabilitation Standard No. 6 is not applicable to this project.

Rehabilitation Standard No. 7: *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Security Fencing and Gates: Rehabilitation Standard No. 7 is not applicable to this project.

Rehabilitation Standard No. 8: *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measure will be undertaken.*

Security Fencing and Gates: Rehabilitation Standard No. 8 is not applicable to this project.

Rehabilitation Standard No. 9: *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and environment.*

Security Fencing and Gates: The project complies with Rehabilitation Standard No. 9. The security fencing and gates do not obscure any character-defining features, and they are clearly differentiated from the features that characterize the building.

Rehabilitation Standard No. 10: *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Security Cameras: The project complies with Rehabilitation Standard No. 10. The security fencing and gates do not obscure any character-defining features, and their removal would not result in any impairment to the building.

RECOMMENDATIONS

The security fencing and gates are generally compliant with the SOIS and no design modifications are recommended at this time for either project.

BIBLIOGRAPHY OF WORKS CITED AND ARCHIVES CONSULTED

Ancestry.com.

Census data and city directories (1870-1940).

Brown, Mary

2011. City and County of San Francisco Planning Department. *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. Document prepared for the 2009/2010 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation.

Challenge Magazine

1953 "These Marvelous Motels." Volume 1.10. Retrieved from http://www.jstor.org/stable/40717975.

City Directory Company

Various San Francisco City Directories. Available at the San Francisco Public Library.

City and County of San Francisco, Department of Building Inspection

Building permits (1924-2010).

City and County of San Francisco Planning Department

2013 *[DRAFT] Neighborhood Commercial Buildings Historic Context Statement: 1865-1965*. Draft Document prepared for the 2012/2013 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department.

Environmental Data Resources

Historic aerials.

Graves, Donna and Shayne Watson

2015 *Citywide Historic Context Statement for LGBTQ History in San Francisco*. Prepared for the San Francisco Planning Department.

Harris, Cyril M.

1998 *American Architecture: An Illustrated Encyclopedia*. New York: WW Norton.

Issel, William and Robert Cherny

1986 *San Francisco, 1865-1932: Politics, Power, and Urban Development*. Berkeley, Calif.: University of California Press.

Lazzaretto, Christine

2007 *The Bungalow and the Automobile: Arthur and Alfred Heineman and the Invention of the Milestone Motel*. Master's thesis, University of Southern California.

McAlester, Virginia and Lee

1984 *A Field Guide to American Houses*. New York: Alfred A. Knopf.

Morton, W. Brown III, Gary L. Hume, Kay D. Weeks, and H. Ward Jandl.

1992 *Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance Division).

National Park Service, Department of the Interior.

1990 *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*. Washington DC: National Register Branch.

1991 *National Register Bulletin 16A, How to Complete the National Register Registration Form*. Washington DC: National Register Branch.

Nelson, Lee H.

1982 *Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Heritage Preservation Services, National Park Service, Department of the Interior, Washington, DC.

Office of Historic Preservation

1995 "Instructions for Recording Historical Resources." Sacramento: State Office of Historic Preservation.

Sanborn Fire Insurance Company

Fire insurance maps of San Francisco (1886-1948).

San Francisco Heritage

Heritage archives.

San Francisco Public Library

San Francisco History Room archives.

Starr, Kevin

2005 *California: A History*. New York: Modern Library.

VerPlanck, Christopher

2015 "Historic Resource Evaluation, 2346 Lombard Street, San Francisco, California."

Whiffen, Marcus

1969 *American Architecture Since 1780*. Cambridge, MA: MIT Press.

APPENDIX A

SAMPLING OF NOTABLE EXTANT 1930s to 1960s MOTELS IN SAN FRANCISCO

Beck's Motor Lodge (2222 Market Street), Constructed 1958

Figure 34. Beck's Motor Lodge, c. 1960s. Source: Pinterest.com.

Figure 35. Beck's Motor Lodge, c. 2015. Source: Booking.com.

Laurel Motor Inn (444 Presidio Avenue), Constructed 1962

Figure 36. Laurel Motor Inn, c. 1960s. Source: Dodge.ForwardLook.EU.

Figure 37. Laurel Motor Inn, 2015. Source: Google.

Mission Serra Motel (5630 Mission Street), Constructed 1965

Figure 38. Mission Serra Motel, c. 1960s. Source: CardCow.com.

Figure 39. Mission Serra Motel, c. 2015. Source: San Francisco Planning Department.

Caravan Motel (601 Eddy Street), Constructed 1956

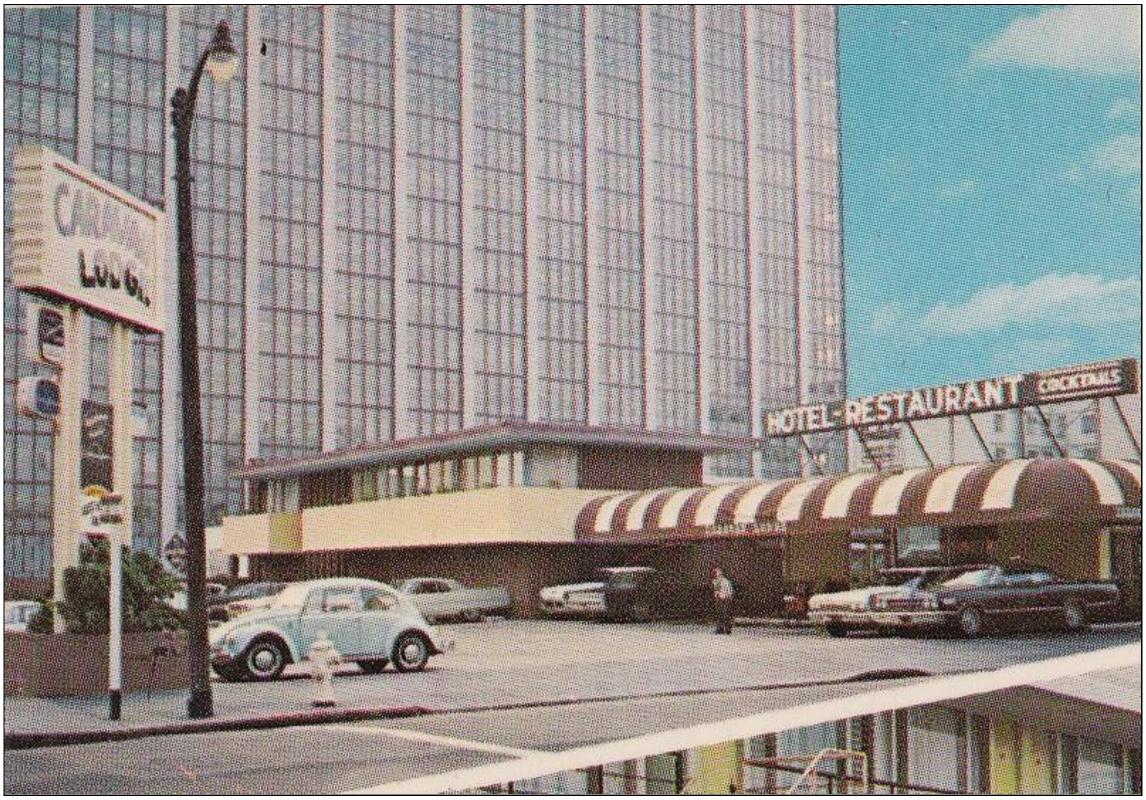


Figure 40. Caravan Motel c. 1960s. Source: Heather David/Flickr.

Figure 41. Caravan Motel (now Phoenix Hotel), c. 2015. Source: SanFranciscoDays.com.

Wharf Inn (2601 Mason Street), Constructed 1959

Figure 42. Wharf Inn, c. 1960s. Source: CardCow.com.

Figure 43. Wharf Inn, c. 2015. Source: Wharf Inn.

Roberts by the Beach (2828 Sloat Boulevard), Constructed 1955

Figure 44. Roberts Motel, c. 1960s. Source: Pinterest.com.

Figure 45. Roberts Motel, c. 2015. Source: InfoUSA.com.

Van Ness Motel (2850 Van Ness Avenue), Constructed 1955

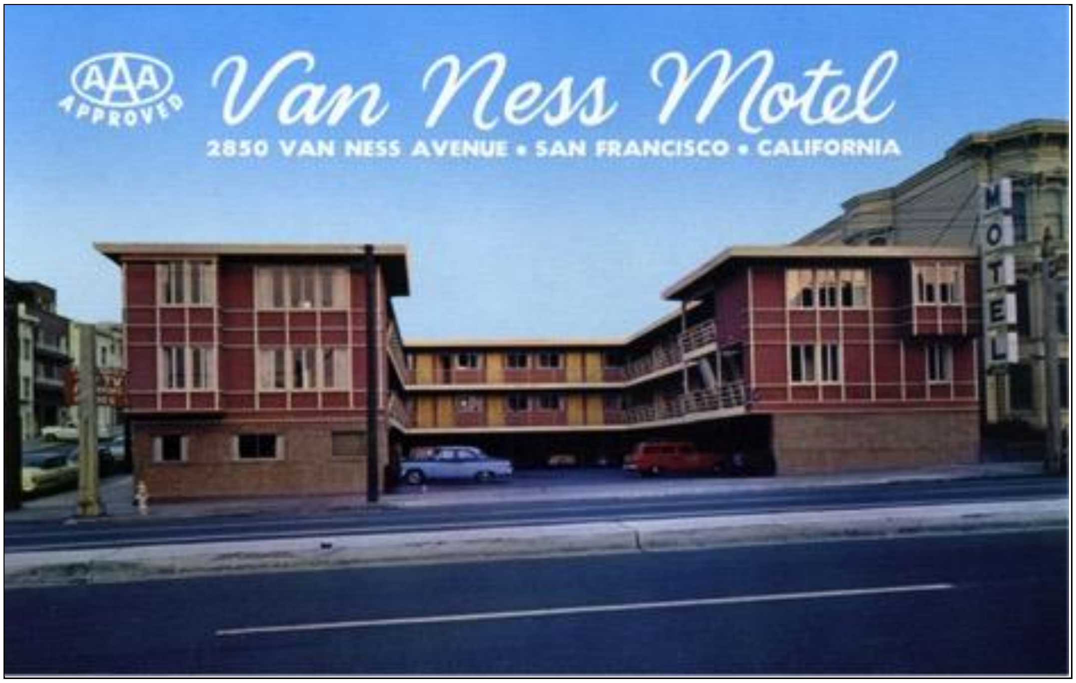


Figure 46. Van Ness Motel, c. 1960s. Source: Ebay.com.

Figure 47. Van Ness Motel, 2015. Source: Google.

Red Coach Motor Lodge (700 Eddy Street), Constructed 1965

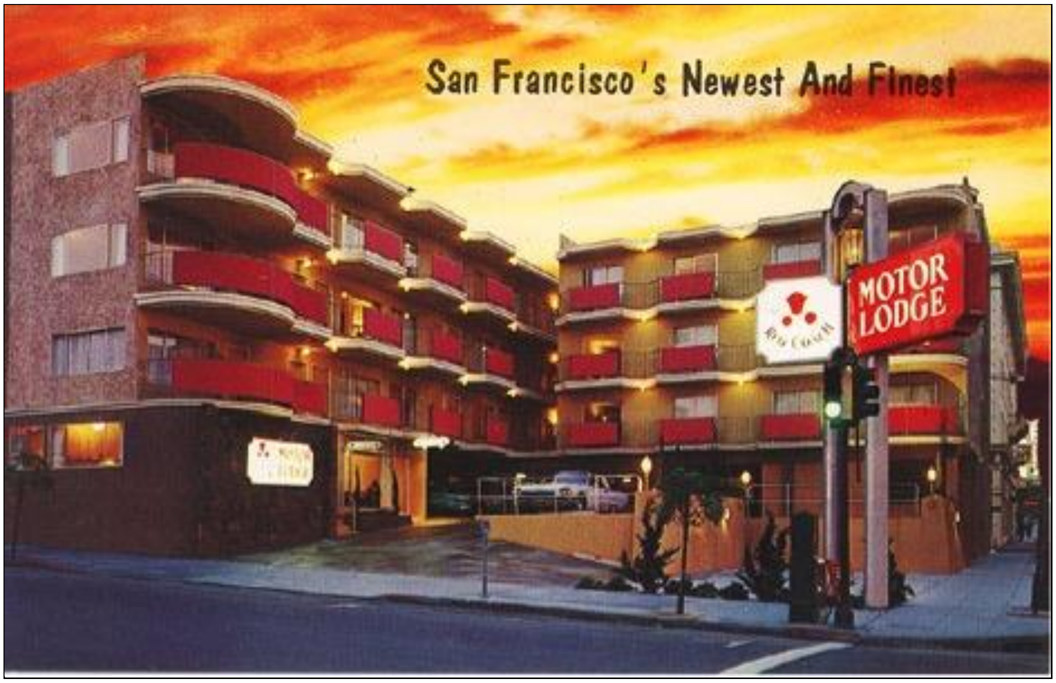


Figure 48. Red Coach Motor Lodge, c. 1970s. Source: Playle.com.

Figure 49. Red Coach Motor Lodge, 2015. Source: Google.

Royal Pacific Motor Inn (661 Broadway), Constructed 1963

Figure 50. Red Coach Motor Lodge, 2015. Source: Google.

Amazon Motel (5060 Mission Street), Constructed 1960

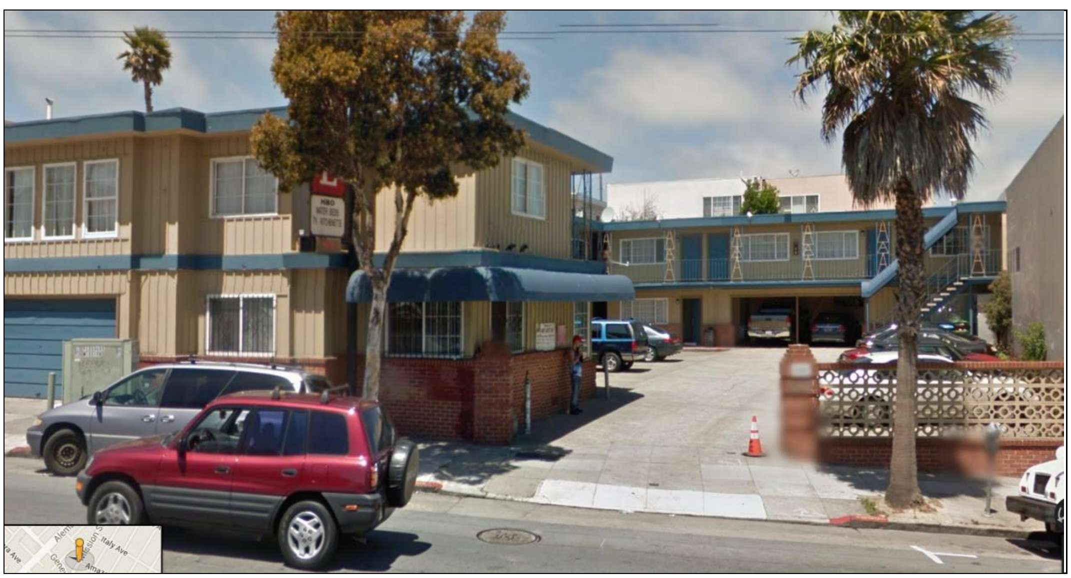


Figure 51. Amazon Motel, 2015. Source: Google.

Seal Rock Inn (545 Point Lobos), Constructed 1959

Figure 52. Red Coach Motor Lodge, 2015. Source: Google.

Days Inn (former Bentley Motor Inn) (465 Grove Street), Constructed 1960

Figure 53. Days Inn, 2015. Source: Google.

ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.®

Part I Historic Resources Evaluation, 1916 Octavia Street, City and County of San Francisco, California

SWCA Environmental Consultants/Turnstone
330 Townsend Street, Suite 216
San Francisco, CA 94107

May 2016

This page intentionally left blank.

TABLE OF CONTENTS

FIGURES

EXECUTIVE SUMMARY

Project Background

This Historic Resource Evaluation (HRE) was prepared by SWCA Environmental Consultants/Turnstone (SWCA) at the request of the Academy of Art University (AAU) in conjunction with the San Francisco Planning Department. This HRE forms part of the Existing Sites Technical Memorandum (ESTM) currently being prepared by SWCA for AAU. Prepared separately as a broader study, the ESTM includes historic resource evaluations (Part 1 HREs) for 26 AAU-owned and operated properties. mong these 26 properties, a total of 22 are Category A properties in the City and County of San Francisco (i.e., known historical resources) and 4 are Category B properties (i.e., properties of age but unevaluated).

Per the guidance of the San Francisco Planning Department, SWCA evaluations of the four Category B properties have been documented in comprehensive HREs meeting the requirements of the San Francisco Planning Department. These four HREs include evaluations of: (1) 1727 Lombard Street (Star Motel); (2) 1916 Octavia Street; (3) 1069 Pine Street; (4) 2340 Stockton Street. This HRE presents the results of the evaluation of 1916 Octavia Street.

Properties that were found eligible as historical resources pursuant to San Francisco Planning Department policy and the California Environmental Quality Act (CEQA) have been carried forward for Part 2 HREs, for project-level analysis of compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (*Secretary's Standards*), as well as San Francisco Planning Department guidelines for historic properties (including for Article 10 Historic Districts and Article 11 Conservation Districts). Where past alterations to the properties were found in noncompliance with the *Secretary's Standards* and/or San Francisco Planning Code Article 10/Article 11 guidelines, recommendations for project modifications have been made, in order to facilitate compliance with the *Secretary's Standards* and San Francisco Planning Department policy. The analysis of alterations included the exterior of the properties, both on primary and secondary elevations, and interior spaces that were historically accessible by the public.

Project Team

The four extended HREs of Category B properties were compiled and prepared by architectural historian Shayne Watson and coauthored by Ms. Watson, Debi Howell-Ardila (SWCA Senior Architectural Historian) and Steven Treffers (SWCA Architectural Historian). Research assistance was provided by SWCA architectural historians Natalie Loukianoff and David Greenwood. Senior oversight and review were provided by Ms. Howell-Ardila and Dr. John Dietler, California Cultural Resources Program Director.

Findings

The residence at 1916 Octavia Street does not appear eligible for listing under designation criteria at the federal, state, or local level, either individually or as a part of a historic district.

INTRODUCTION

The subject property is a 1899 residential building located at 1916 Octavia Street, near the corner of Octavia and Sacramento Streets in Pacific Heights. The Assessor's Parcel Number (APN) is 0640011. The lot size is 9,750 square feet. The building is located within an RH-2 (Residential-House, Two Family) zoning district. Academy of Art University acquired the property in 1995.

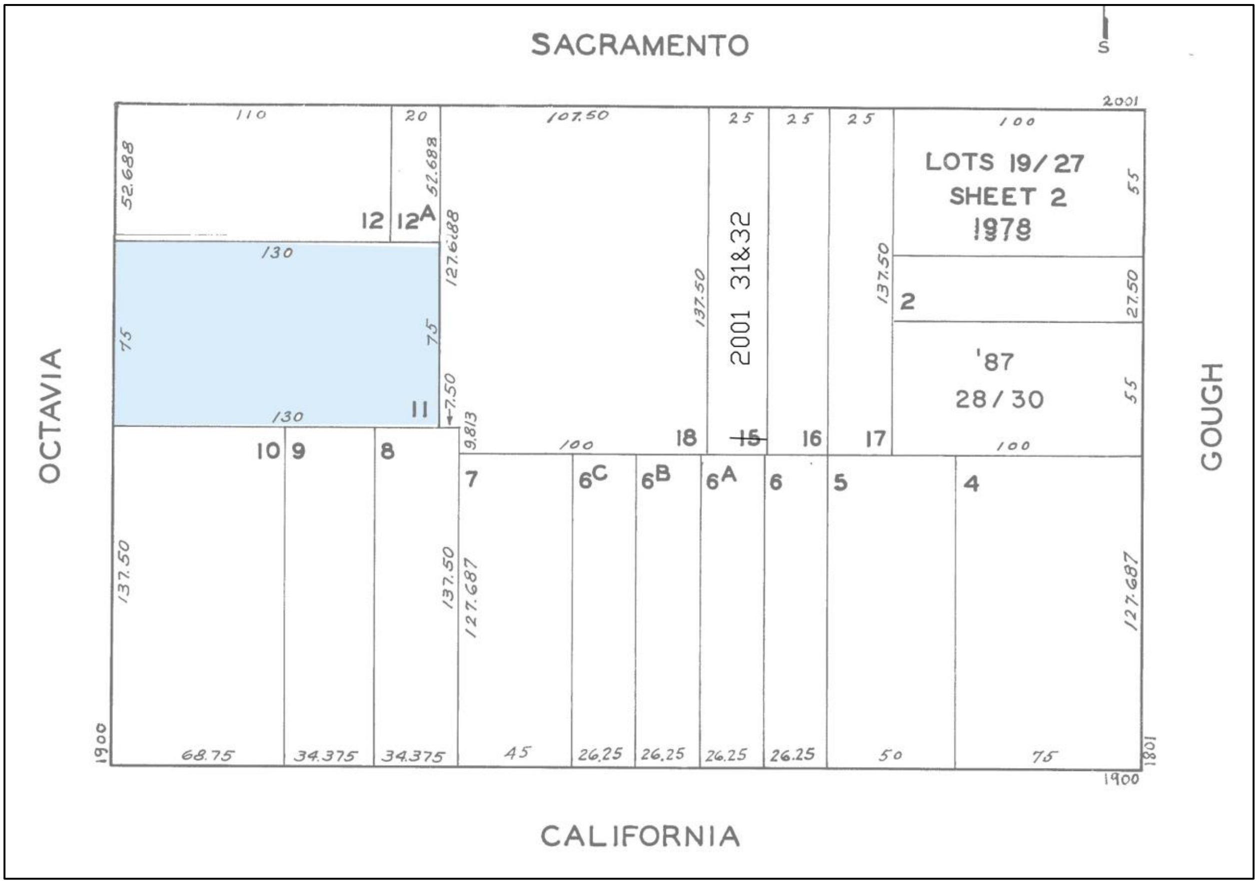


Figure 1. Project Location, Assessor's Parcel Map, City and County of San Francisco. The blue polygon marks the location of 1916 Octavia Street. Source: City and County of San Francisco, edited by author, 2016.

Figure 2. Project Vicinity. Blue polygon marks the location of 1916 Octavia Street, in Pacific Heights. Source: City and County of San Francisco Property Information Map, 2016.

Current Historic Status

The property is a "Category B" property, a property that is age-eligible but has not yet received a CEQA historical resource status. According to records on file with the San Francisco Planning Department, the property has not been previously surveyed.

Adjacent Historical Resources

The following describes known historical resources adjacent to 1916 Octavia Street, within a radius of one block.

Directly adjacent to the south, the neighboring property, the Atherton House at 1910 Octavia Street/1990 California Street, is a San Francisco Landmark (No. 70) and is listed individually in the National Register of Historic Places (NRHP). Three properties located within one block of 1916 Octavia Street have been found eligible for listing in the NRHP or California Register of Historical Resources (CRHR). These properties, as well as other known historical resources adjacent to the proposed project site, are listed in Table 1.

TABLE 1 ADJACENT HISTORICAL RESOURCES, 1916 OCTAVIA STREET

Resource Name/Address	Construction Date	Criteria (CRHR/NRHP)	Current Historic Resources Status
Atherton House/1910 Octavia Street/1990 California Street	1881/1900	NRHP	Individually listed/designated
Lafayette Park/2102 Washington Street	1867	NRHP/CRHR	Individually eligible
D.J. Clancy Apartment Building/2101 Sacramento Street	1925	NRHP	Individually eligible
Young Apartment Building/2000 California Street	1924	NRHP	Individually eligible

ARCHITECTURAL DESCRIPTION

Exterior Architectural Description

The subject property consists of a four-story building with three major additions: a three-story addition abutting the east end of the main building's south façade, a one- and two-story rear addition adjoining the main building's east façade, and a detached one-story garage addition at the southeast corner of the property. The main building was constructed in 1898 and has a roughly rectangular footprint. The three-story addition was constructed c. 1902 (first and second floors) and c. 1957 (third floor). The one- and two-story rear addition was constructed c. 1910 (two-story section) and c. 1930 (one-story garage), and the garage opening was infilled by 1999. The buildings occupy a rectangular lot fronting Octavia Street. A concrete drive lines the south side of the lot and leads to the detached garage addition. Modern fabric awnings over metal frames cover walkways to the entrance at the main building's south façade. Low brick walls surmounted by wrought-iron fencing are located at the front and south yards of the property.

Main Building

The walls of the first floor are painted brick laid in common bond with brick windowsills. The walls of the second, third, and fourth floors are reinforced concrete clad in plaster. At the west, south, and north façades, the plaster is scored to resemble smooth ashlar masonry. The walls of the east façade are covered with unscored plaster. A flat roof tops the building. On all façades, a cornice consisting of a series of moldings—including a dentil course and egg-and-dart molding—wraps the building. The walls are divided by horizontal coursing above the first floor windows with additional coursing at sill level below the third- and fourth-floor windows. The windows are replacement aluminum one-over-one sash unless otherwise noted. All original window openings are framed by wood trim; those of the second and third floors typically have eared architraves. The openings on the fourth floor are eyebrow windows.

Stylistically, the building exhibits Neoclassical influences, specifically the Greek Revival style, in its ornamentation: cornice with moldings and dentil course; portico with Doric columns, angled Ionic capitals, and entablature; eared architrave window trim; and eyebrow windows.

Figure 3. West and south façades, 1916 Octavia Street. Source: SWCA, 2015.

Main Building: South (Primary) Façade

Although it faces the side of the lot rather than the street, the south façade was designed as the primary façade, is more ornamented than the west (street-facing) façade, and includes the primary entrance. This façade is asymmetrical, and the fenestration pattern varies between floors. At roughly the center of this façade, there is a two-story projecting bay. An entablature and flat roof top the bay. East of the bay, an exterior chimney extends from the first floor to the cornice and projects above the roofline.

At the west end of the first floor, there is a portico with flat roof supported by eight Doric columns with angled Ionic capitals and four simple pilasters. The center of the portico projects, and an entablature surrounds the cornice. Sheltered by the portico, there is a recessed entrance flanked by ornate leaded glass windows with wood hoods supported by consoles. The walls of the recessed entrance are plaster, the ceiling wood bead board, and the floor a white marble with gray veining. At the north wall of the recessed entrance, there is a wide ornately-carved quarter-sawn oak door with glazing in the upper half. The door itself includes a lower panel with intertwined carving framed by nailhead, pearl, and anthemion moldings. Foliate and arabesque carving surrounds the glazing. The glazing of the door and windows flanking the recessed entrance are leaded and feature an overlapping circle motif. The door hardware is a modern brass replacement. Wood trim with bead-and-reel molding frames the door. At the landing in front of the portico, there is square and diamond tile paving. A marble stairway leads to the paving and portico beyond.

At the first floor east of the portico in the projecting bay, there are two segmentally arched windows covered by wrought-iron security grills in an intertwining pattern. East of these, there is a sliding aluminum window with a modern metal mesh security grill. Finally, at the east end of the first floor, there is a modern metal utility box and a small window with a wrought-iron security grill in an intertwining pattern.

At the west end of the second floor, there are two windows. To the east, recessed in the bay, there is a pair of windows with transoms flanked by pilasters on the walls perpendicular to the windows. Further east on either side of the chimney, there are single windows. Above on the third floor, there are two windows that align with those below, a pair of windows above the projecting bay, a single window, a small window in the chimney, and finally, another single window. The fenestration pattern of the fourth floor largely aligns with those below. There are two windows, a tripartite window above the projecting bay, a single window, and one more window east of the chimney.

Figure 4. South façade, 1916 Octavia Street. Source: SWCA, 2015.

Figure 5. South façade, primary entrance, 1916 Octavia Street. Source: SWCA, 2015.

Main Building: West Façade

The west façade faces Octavia Street. At the second, third, and fourth floors, the façade is symmetrical and consists of two bays of window openings. A modern steel fire escape spans the southern windows from the second floor to the roof. The openings on the first floor of the west façade are utilitarian in character and asymmetrical. The first floor is largely obscured by the fencing at the front of the property. At the north end of the first floor, there is a wood door with vision light. To the south, there is a grouped window consisting of two pairs windows. Wood molding surrounds the openings, and a simple wood mullion divides the pairs. Wrought-iron grills cover the windows. A horizontal pipe covers the coursing between the first and second floors and extends to the planting beds.

Figure 6. West façade, 1916 Octavia Street. Source: SWCA, 2015.

Main Building: East (Rear) Façade

At the east façade, there is a four-story projecting bay, which was part of the original building. Numerous pipes and conduits are mounted on the wall. At the first floor, there is a modern hollow-core door accessible by a concrete ramp with wood handrails. The windows of the second, third, and fourth floors match the form and materials of those on the other façades. A modern steel fire escape spans from the third floor to the roof.

Main Building: North Façade

Views of the north façade are blocked by trees and adjacent buildings. It appears there are only a few openings on this façade. At the center of the fourth floor, there is a paired window. The surrounding trim is wood, but the form and materials of the window sash are not visible. It appears there is a projecting bay at the first floor and a window at the center of the second floor, but these are largely obscured.

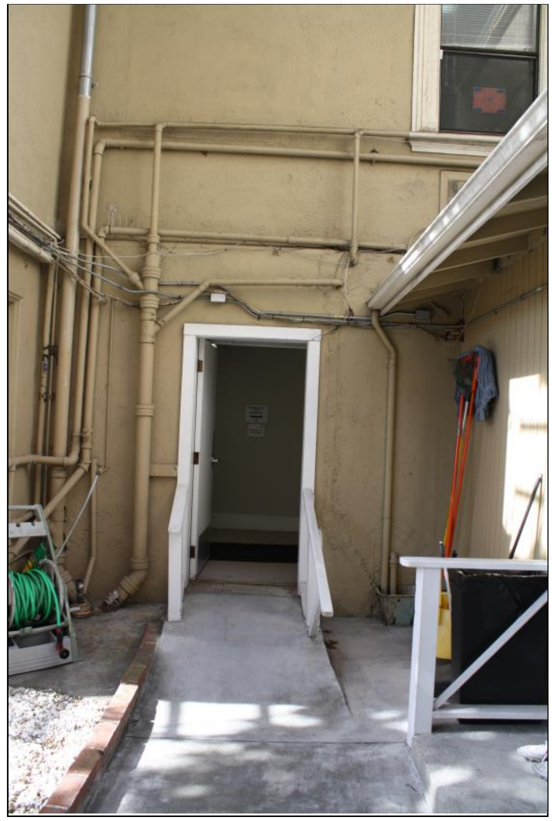


Figure 7. East façade, 1916 Octavia Street. Source: SWCA, 2015.

Three-story Addition

The three-story addition has a rectangular footprint and attaches to the east end of the main building's south façade. The first and second floors were constructed c. 1902 (Sanborn maps: 1899 and 1905) and largely match the main building in style and materials. The third floor of the addition was built c. 1957 (Sanborn map: 1950 and Here Today photo: 1964) and diverges in character, ornamentation, and materials. The walls at the first and second floors of the west and south façades are scored plaster simulating smooth ashlar masonry. Those of the east façade and all façades of the third floor are rough plaster. A flat awning with paired modillions at the corners separates the first and second floors. An entablature, including egg-and-dart molding, tops the second floor and is supported at the corners by Doric columns with angled Ionic capitals. The corners of the second floor are indented. At the third floor, the building steps back, and the roof of the second floor forms a third-floor balcony, which is surrounded by a metal railing. The roof of the addition is hipped with open eaves. A vertical board parapet surrounds the uppermost section of the roof. Between the hipped section and parapet, there is bead-and-reel molding.

Figure 8. Three-story addition at south façade, 1916 Octavia Street. Source: SWCA, 2015.

Three-story Addition: West (Primary) Façade

At the first floor, there is a small window with a wrought-iron security grill in an intertwining pattern and a pair of aluminum sliding windows. At the second floor, there is a tripartite window composed of a large one-over-one window with narrower one-over-one windows on either side. The windows are aluminum but the surrounding trim and mullions are wood. The third floor has a single glazed door with semicircular transom flanked by semicircular arched windows. The semicircular windows are composed of sliders with semicircular transoms. The windows and door are aluminum.

Three-story Addition: South Façade

At the first floor of the south façade, there is a one-over-one aluminum window with a wrought-iron security grill. To the east, there is a glazed wood door with a wrought-iron grill. Both grills exhibit an intertwining pattern. The entrance is accessible by a brick stairway with simple pipe handrails. At the second floor, there is a tripartite window composed of a large one-over-one window flanked by narrower one-over-one windows. The windows are aluminum but the surrounding trim and mullions are wood. On the third floor, there are three aluminum semicircular windows; the center is larger than those on either side. The semicircular windows are composed of sliders with semicircular transoms.

Three-story Addition: East Façade

There are no openings on the east façade. At the first floor three pilasters support a large wood lintel. A modern metal fire escape is attached to the second floor.

Rear Addition

The rear addition is composed of a two-story section and a one-story section; flat roofs top both. The two-story section was constructed c. 1910, and the one-story section was built as an attached garage c. 1930 (Sanborn map: 1899, 1913 and 1950). By 1968, the garage opening had been infilled (Sanborn map: 1968). The walls of the rear addition are clad in vertical wood siding and plaster. At the south façade there is a vinyl sliding glass door and two aluminum sliding windows. A modern fabric awning over metal frame is mounted to the cornice of the one-story section.

Figure 9. Rear addition (two-story section at left, one-story garage addition at right), 1916 Octavia Street. Source: SWCA, 2015.

Detached Garage

There is a small one-story garage at the southeast corner of the property. The building has a rectangular footprint and was constructed in 1930 (permit no. 183347). By 1999, the garage opening had been infilled (Sanborn map: 1999). The roof is flat, and simple molding lines the cornice. The upper wall of the wood-framed structure is clad in plaster scored to resemble smooth ashlar. The original garage opening has been infilled with horizontal, wood, drop siding walls. To the south, there is a paneled wood door with modified fanlight glazing. To the north, the wall steps back, and there is a single aluminum sliding window with simple wood frame and metal security grill.

Figure 10. Driveway and garage addition, 1916 Octavia Street. Source: SWCA, 2015.

SITE HISTORY

The three-story-plus-basement, brick and wood-frame residence at 1916 Octavia Street was completed in 1898 at a cost of approximately $12,500.[1] It was designed by architect Frederick Herman Meyer, partner in the firm of Newsom & Meyer. The builder was Mallory & Swenson. The residence was commissioned by Bay Area businessman Adolph Mack, who purchased a 45'x138' piece of land for the property in May 1898.[2] (See Owner/Occupant History for more biographical information on Adolph Mack.) In December 1898, Mack paid $6,000 for an additional 30'x138' piece of land, which expanded his Octavia Street frontage to 75'.[3] With the purchase of the additional lot, the Mack residence had a buffer along the south elevation, which faces California Street and, at the time, would have had views overlooking the city.

A few years after the residence was completed, the *San Francisco Chronicle* described it as "handsome" and located within a "fashionable residence district."[4] The interior was "very handsome, the finish being in mahogany and oak. The floors are of hard wood."[5] Servant quarters were on the first floor, bedrooms were on the third floor. The main entrance was covered by a portico.[6]

---

[1] "New Building Contracts," *San Francisco Call*, June 15, 1898.

[2] "Real Estate and Building." *San Francisco Chronicle*, May 7, 1898.

[3] "Real Estate Transactions," *San Francisco Call*, December 10, 1898.

[4] "Burglars Make Visit to Eugene de Sabla," *San Francisco Chronicle*, April 16, 1903.

[5] "Many Exchanges Made in Realty," *San Francisco Call*, September 28, 1902.

[6] "Burglars Make Visit to Eugene de Sabla."

Adolph Mack sold the 1916 Octavia Street residence in September 1902 for approximately $50,000.[7] It was purchased by prominent San Francisco businessman, Eugene J. de Sabla Jr., who helped found Pacific Gas and Electric in 1905.[8] This was one of two residences owned by de Sabla, the second a summer home in San Mateo called El Cerrito. (See Owner/Occupant History for more biographical information on Eugene de Sabla Jr.) Either Mack or de Sabla commissioned a two-story addition on the south side of the house, which appears on the 1905 Sanborn Fire Insurance Company map. Beginning in 1906, de Sabla and his family lived full time in San Mateo.

In 1909 they sold the Octavia Street residence to Max J. Brandenstein, founder of MJB Coffee Company.[9] The Brandensteins lived in the house for 16 years until Max's death in 1925. The only known alterations during the Brandenstein period were a two-story addition at the east façade, constructed c. 1910, and a rectangular structure (possibly a carport or covered walkway) to the east side of the south wing. (See Sanborn maps: 1899 and 1913.)

Beginning c. 1929, the house was owned by Clara Herrscher, widow of Joseph Herrscher. Herrscher lived in the house with her daughter and grandson, Emma and Melvyn Friendly, her sister, Lilly Hesser, and two servants.[10] The Herrscher/Friendly families lived in the house through 1944. They were responsible for the construction of a 20'x20' detached garage building at the southeast side of the property in 1930. Additionally, they likely added the one-story garage addition at the east façade, constructed c. 1930 (Sanborn map: 1913 and aerial photo: 1938).

In the mid-1940s, 1916 Octavia Street was converted into an apartment house/long-term resident hotel. The conversion into a multi-resident building resulted in the following known alterations:

- conversion of the garage addition into housing, sometime between 1950 to 1968 (1950 and 1968 Sanborn maps);
- installation of fire escapes, pre-1963 (permit no. 286307);
- installation of bathroom on 4th floor of guest house, 1967 (permit no. 311954);
- addition of a small, single-story building to the north of the former garage, 1950-1968 (1968 Sanborn map);
- addition of a third story on the south addition, pre-1964 (1964 Junior League Survey photo);
- new bathroom, location unknown, 1970 (permit no. 350816);
- reduced parcel boundary line at the east in the mid-1970s when the Jacqueline Court Apartments building was constructed (1999 Sanborn map);
- kitchen remodel, 1983 (permit no. 504179); and

[7] "Many Exchanges Made in Realty."

[8] National Park Service, "De Sabla, Eugene J., Jr., Teahouse and Garden," Asian Pacific American Heritage Month, National Park Service, www.nps.gov/nr/feature/asia/2010/sabla_tea_house.htm (accessed November 13, 2015).

[9] "E.J. de Sabla Sells His City Residence," *San Francisco Call*, December 27, 1909.

[10] Ancestry.com, 1930 and 1940 United States Federal Census [database on-line] (Provo, UT, USA): Ancestry.com Operations, Inc., 2012.

- Replacement of original double-hung wood windows with brown vinyl and jalousie windows (AAU, Memo to SWCA, 2/2/2016).

Academy of Art University purchased the property in 1995. AAU was responsible for the following substantive permitted alterations:

- re-roofing, 1995 (permit no. 782366);
- bathroom remodels, 2004 (permit no. 1023911);
- dry-rot wall repair on 1st floor, 2008 (permit no. 200809050890);
- foundation wall raised, 2008 (permit no. 200809050890);
- bathroom “gut” to replace dry wall rot on floor and walls, location unknown, 2009 (permit no. 200907152709);
- replacement of guardrails on 4th floor and roof, 2009 (permit no. 200908185083);
- sign installation, 2011 (permit no. 201105095664);
- “legalization” of awning canopy at entrance, 2011 (permit no. 201105095670); and
- restoration of storage/garage use, location unknown; installation of new windows and door, locations unknown, 2013 (permit no. 201303222887).

Other visible alterations that may have occurred since AAU purchased the property but that could not be substantiated through permit research include: addition of canvas awning and security fence; awning added to rear, single-story addition; security gate added to rear year; and concrete ramps added at rear entry on east façade. (Dates of alterations are unknown.)

The following Sanborn Fire Insurance Maps and historic aerial images present a visual overview of the property’s construction chronology. Following the figures, Table 2 lists all permitted alterations to the subject property.

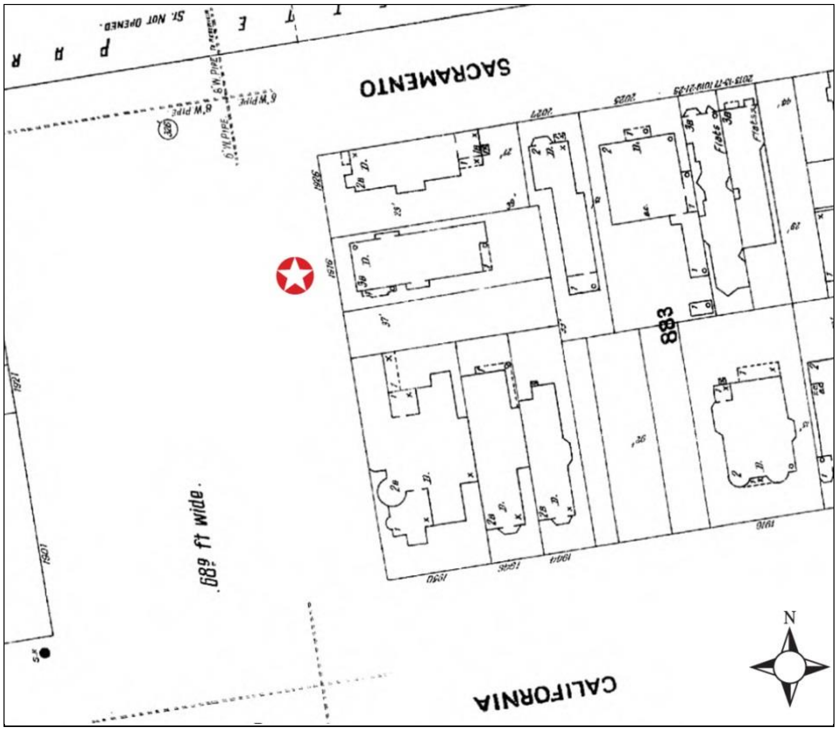


Figure 11. 1899 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

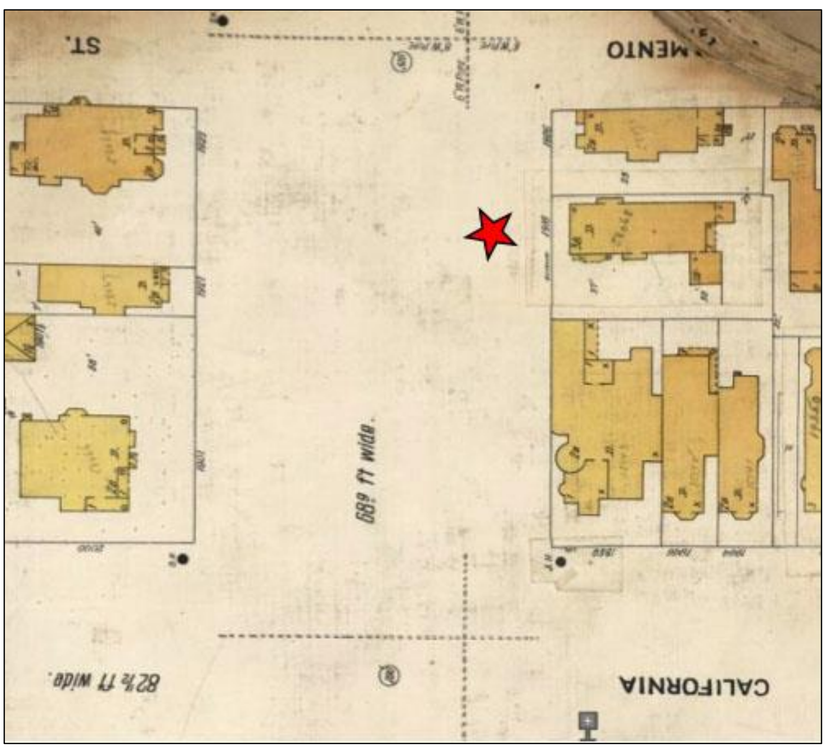


Figure 12. 1905 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

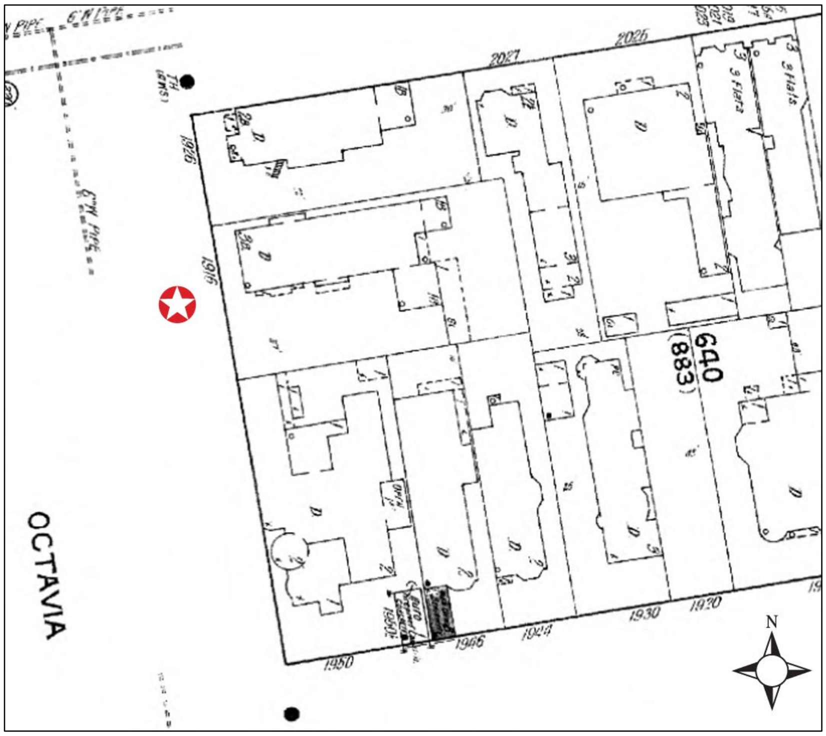


Figure 13. 1913 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

Figure 14. 1938 aerial photograph, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

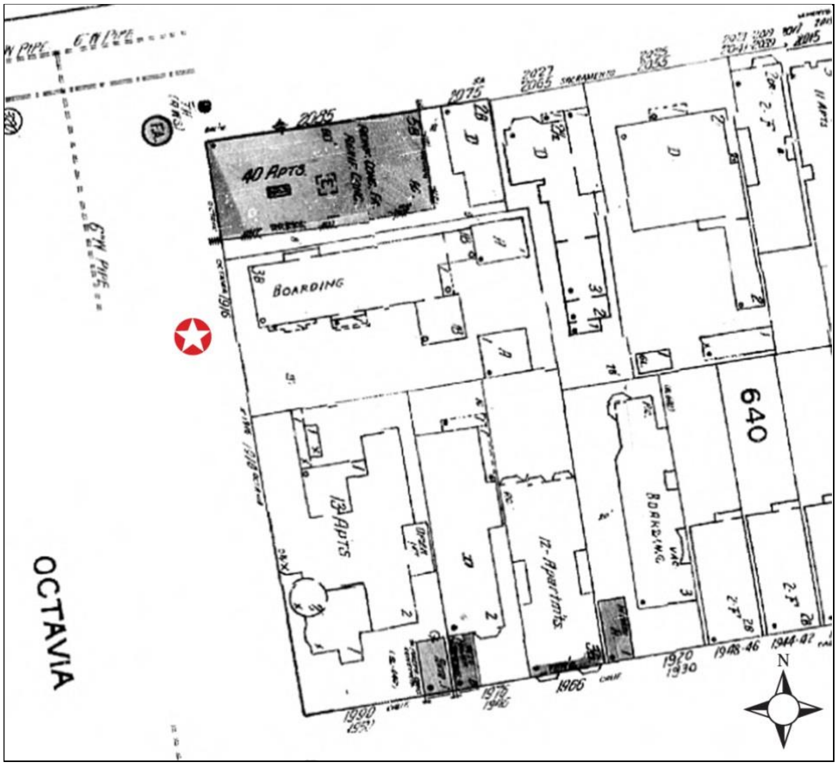


Figure 15. 1950 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

Figure 16. 1964 Here Today Survey Photograph. Source: San Francisco Heritage.

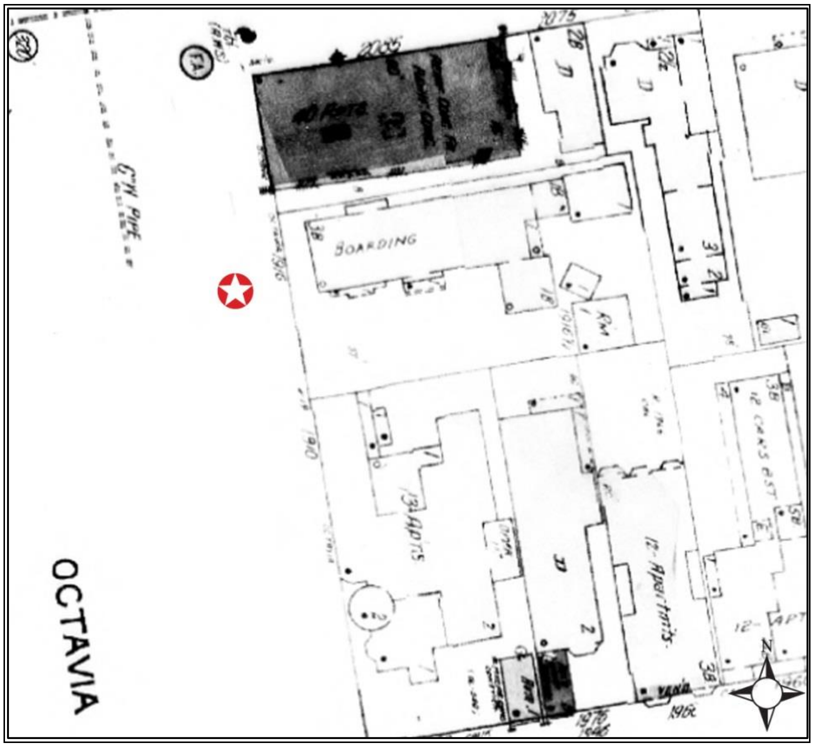


Figure 17. 1968 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

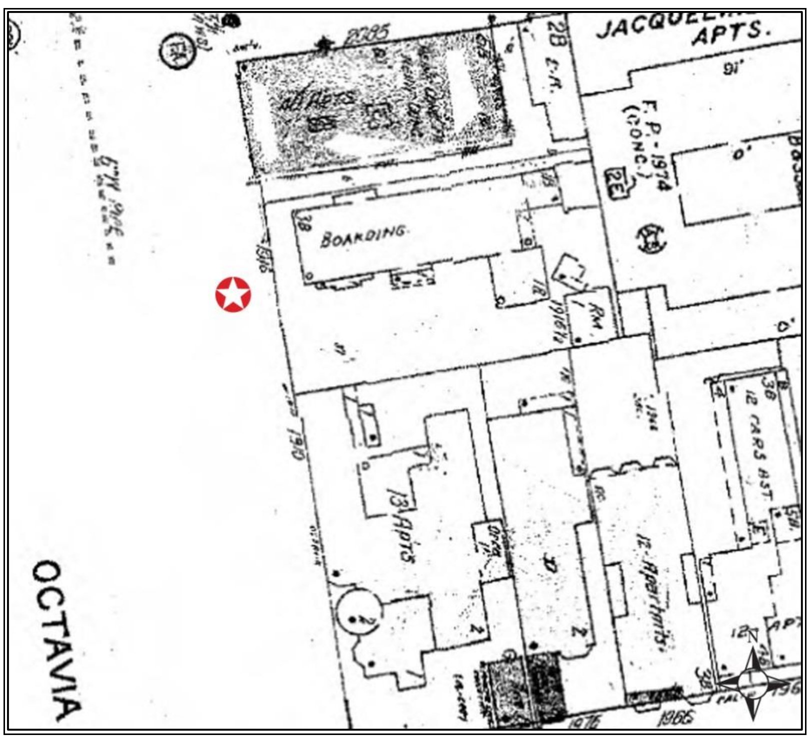


Figure 18. 1999 Sanborn Fire Insurance Map, 1916 Octavia Street. Source: Environmental Data Resources, 2015.

TABLE 2 BUILDING PERMITS, 1916 OCTAVIA STREET

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Dec. 20, 1929 (Jan. 17, 1930)	183347	Herrscher		$400	Rear garage building, measuring 20 by 20 feet.
July 9, 1940 (July 19, 1940)	52491 (54331)	Herrscher		$500	Refine foundations and studying (?) balconies. [illegible]
July 30, 1963 (Nov. 26, 1963)	286307 (260419)	Mrs. Gladys Contini	Enar Eric Holm	$7,200	Sprinklers in all bedrooms, 1st floor lobby, and stairs and hallways. Dry standpipe to roof. Extend fire escapes, add ladders. Metal laundry chute. Fireproof furnace room.
Sept. 13, 1965 (Oct. 7, 1965)	286342 (319956)	John M. Cannon (lessee)		$10,000	To comply with code: to legalize past work on Hotel by cutting fire escapes out…
Sept. 6, 1967 (Sept. 27, 1967)	311954 (347688)	Mrs. May E. Regorz		$5,000	Install 4th floor bathroom in guest house
Mar. 13, 1968 (Mar. 25, 1968)	317988 (26323)	Angela Regorz; John M. Cannon (lessee)		$309	Fabricate and install on front building: one “safe exit” collapsible ladder on rear of building and one fixed stair.
Mar. 12, 1968 (Mar. 29, 1968)	318272 (354494)	Angela Regorz		$2,000	To comply with 1 hour construction. Electrical and plumbing work to be performed is checked “yes” on permit.
June 4, 1969 (June 12, 1969)	333041 (370861)	Angela Regorz		$1,500	To comply with UR report (see previous application #(354494).
Oct 22, 1970 (Dec. 2, 1970)	350816 (390099)	Angela Regorz		$2,000	Add sprinkler heads to sprinkler system. Add bathroom vent. Repair ceiling on both kitchen and bathroom. Add railing on fire escape. Add fire rated door on new bathroom.
Dec. 10, 1971 (Jan. 26, 1972)	363233 (404490)	Angela Regorz		$1,000	Permit to legalize the building as a guesthouse for two male adults, each with separate sleeping rooms and one shared bathroom.
Aug. 2, 1983	504179	Ofelia Guire		$1,000	Kitchen remodel, change hood over stove to a larger vent hood.

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Jan. 11, 1985	525938	F. Duley		$2,500	Kitchen install: sheet rock and replace countertop cabinets.
Nov. 9, 1995	782366	AAU		$10,000	Re-roof: tear off excess B.U.R. Apply 3-ply roofing on Annex building only. Roof maintenance and repair on main building only.
Apr. 9, 1997	818985	AAU		$18,000	Roofing permit: install new sheet rock, install 25-year asphalt shingle with metal flashing accessories.
Apr. 28, 2004	1023638 (3411)	AAU		$25,000	Fire safety: alter sprinkler system on all floors, revise to bring up to current codes. Comply with Ord. No. 170-02.
Aug. 18, 2004	1033515	AAU		$1	As-built to permit #(3411)
Apr. 30, 2004	1023911	AAU		$25,000	Bathroom remodels in dormitory. Repair and maintenance: finish replacement and fixture replace to 5 existing bathrooms.
June 23, 2004	S.F. Property Info Permit: 200406237190	AAU		$50,000	Installation of new Fire Alarm system.
Sept. 9, 2008	200809050890(1165487)	AAU		$15,000	Minor repair on dry-rot wall on 1st floor. Cut dry rotted studs and raise foundation wall.
July 17, 2009	200907152709(1190071)	AAU		$9,500	Gut bathroom to repair dry-rot. Replace bad wood members on wall and floor.
Sept. 22, 2009	200908185083 (1195064)	AAU		$7,000	Add guardrails at 4th floor and roof; existing railing are safety hazard
May 9, 2011	S.F. Property	AAU		$1,000	Painted non-structural sign

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
	Info Permit: 201105095 664				
May 9, 2011	S.F. Property Info Permit: 201105095 670	AAU		$5,000	Legalize awning canopy at entry as required per Planning Dept.
Mar. 22, 2013	S.F. Property Info Permit: 201303222 887	AAU		$2,000	Abate Nov #201053528-Restore, storage/garage use. Install new windows & door.

FOCUSED NEIGHBORHOOD CONTEXT

Pacific Heights

In their book, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (1986), historians William Issel and Robert Cherny identify seven distinct neighborhoods that existed or were developed in San Francisco from the mid-nineteenth century to World War I: South of Market, Mission District, Western Addition, Nob Hill-Pacific Heights, Chinatown, North Beach, and Downtown. Each neighborhood was distinct in terms of demographics and character. Pacific Heights was "distinctly upper-class."[11]

Pacific Heights was part of the city's Western Addition, the section of San Francisco west of Larkin Street and North of Market that opened for developed after 1855. Although technically located within the Western Addition, Pacific Heights was always considered its own neighborhood—distinct both in architecture and character. Neighborhood boundaries are California Street at the south, Presidio Avenue at the east, Union Street at the north, and Van Ness Avenue at the east. Developed in conjunction with Nob Hill—generally beginning in the 1870s when cable cars first provided access to hilltops—Pacific Heights was home to many of the city's wealthiest residents.[12] Streetcar lines on most of the major east-west streets afforded easy commutes to San Francisco's central business district. The neighborhood was made even more attractive by its public parks, including Lafayette and Alta Plaza Parks—each comprising nearly 12 acres of open space.

Among Pacific Heights' earliest residents, according to Issel and Cherny, were the city's elites, including Michael H. de Young, cofounder of the *San Francisco Chronicle*, and William Bourn, founder of the Spring Valley Water Company.[13] "Well over a third of the families listed in *Our Society Blue Book*, a listing of 'people of social standing and the highest respectability,'" lived in Pacific Heights in 1902.[14] In other parts of Pacific Heights, modest, single-family homes—similar in character to those constructed in 19th-century Western Addition—housed upper-class merchants.[15]

After the 1906 earthquake and fires, some parts of San Francisco were decimated, while others remained intact. Downtown, South of Market, Chinatown, and most of North Beach were destroyed and rebuilt relatively quickly atop the previous street grid, platted in 1847.[16] Pacific Heights, along with large parts of the Mission District and Western Addition, survived intact. As Pacific Heights was rebuilt after the fire, new development tended to be smaller in scale than the more monumental mansions constructed in the neighborhood in the nineteenth century. Following the fire, many upper-class residents opted to leave the city for country homes on the Peninsula or in Marin County. This included Eugene de Sabla Jr., owner of the residence at 1916 Octavia Street from 1902 to 1909. In many cases, post-earthquake mansions in Pacific Heights served merely as part-time city homes for their owners.

[11] William Issel and Robert Cherny, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (Berkeley: University of California Press, 1986), 58.

[12] Ibid., 69.

[13] Ibid., 70.

[14] Ibid.

[15] Ibid.

[16] Kevin Starr, *California: A History* (New York: Modern Library, 2005), 176.

1900 Block of Octavia Street

By 1893, the 1900 block of Octavia Street was almost fully developed.[17] Single-family homes on large lots—some quadruple the width of standard parcels—filled the four corners. The largest building on the block was the Atherton House (1881) at the southeast corner at 1990 California Street (San Francisco Landmark 70). The only undeveloped parcel was 1916 Octavia Street (the subject property). In 1899, the Sanborn Fire Insurance Company map shows the block fully developed, with a residence at 1916 Octavia Street on a double lot. The block remained unchanged in the decade after the 1906 earthquake.

The most substantive developmental changes occurred on the block in the period between 1913 and 1929. On the east side of the block, all but one of the single-family residences—1921 Octavia Street—had been demolished and replaced with large apartment buildings. On the west side, the single-family residence to the north of 1916 Octavia Street was replaced with a 40-unit apartment building. By 1950, the only nineteenth-century buildings on the block were 1916 Octavia Street and the Atherton House at 1990 California Street.

The last major change on the block was the introduction of the ten-story Jacqueline Court Apartments at 2055 Sacramento Street in 1975. Though not located on the 1900 block of Octavia (the building faces Lafayette Park), the building's height and bulk continue to impact the character of this stretch of Octavia Street.

OWNER/OCCUPANT HISTORY

Adolph Mack (Owner, 1898-1902)

The residence at 1916 Octavia Street was completed in 1898 as a commission for prominent Bay Area businessman Adolph Mack.[18] Mack was born in New York in 1858; his parents were German immigrants. In 1880, Mack, along with his brother, Julius Jacob Mack, and Leon Guggenheim, formed J.J. Mack and Company.[19] J.J. Mack retired in 1888, and Adolph Mack and Guggenheim formed Mack & Company, a wholesale drug company.[20] Later, Mack was president of the City Electric Company.[21]

Mack married Clara Gerstle in 1882. The Macks moved into the residence at 1916 Octavia Street in 1899. The 1900 census shows them living with two daughters, two sons, Mack's brother, and three servants.[22] Adolph Mack sold the 1916 Octavia Street residence to Eugene de Sabla Jr. in September 1902.

Eugene de Sabla Jr. (Owner, 1902-1909)

Eugene de Sabla Jr. was born in Panama in 1865. His family was living in San Francisco by 1870. In 1888 he married Laura Russell. After working for his father's import business beginning in 1886, de Sabla struck out on his own. As early as 1889, he cofounded the Nevada County Development and Improvement Company with the goal of developing mines and electricity.[23] The company failed and was reincorporated in 1892 as Nevada County Electric Power Company. In 1901, de Sabla became vice president of the newly formed California Gas and Electric Company—a position that made de Sabla exceedingly wealthy. The de

[17] This section was written with the use of Sanborn Fire Insurance Maps, 1893-1999.

[18] Real Estate and Building," May 7, 1898.

[19] "Certificate of Copartnership," *Daily Alta California*, November 6, 1880.

[20] "Copartnerships," *Daily Alta California*, December 1, 1888.

[21] "Real Estate and Building," May 7, 1898; "Adolph Mack Girdles Globe Tour Covers 150,000 Miles," *San Francisco Chronicle*, February 14, 1913.

[22] Ancestry.com, 1900 United States Federal Census [database on-line] (Provo, UT, USA): Ancestry.com Operations Inc., 2004.

[23] Marilou West Ficklin, "Eugene de Sabla and Family," *Nevada County Historical Society Bulletin* 63:1 (December 2009).

Sablas purchased the residence at 1916 Octavia Street in the following year. In 1905, the San Francisco Gas and Electric Company and the California Gas and Electric Corporation merged to form Pacific Gas & Electric Company (PG&E); Eugene de Sabla was PG&E's first president.[24]

Beginning in 1906, de Sabla began construction on a country house in San Mateo. Known as El Cerrito, the property featured a Japanese garden and teahouse designed by Japanese landscape designer Baron Makota Hagiwara (1854-1925). The residence was demolished, but the Japenese garden and teahouse are extant (listed in the NRHP in 1992 for significance related to Hagiwara, not de Sabla). The de Sablas sold 1916 Octavia Street to Max J. Brandenstein in 1909 and lived in San Mateo full time.

Max J. Brandenstein (Owner, 1909-1925)

Max J. Brandenstein was born in San Francisco in 1860 to German-Jewish parents. His father was a wholesale tobacco merchant. In 1881, Brandenstein partnered with John Siegfried to form Siegfried & Brandenstein, a tea, coffee, and spice import company. He married Bertha Weill in 1885. Beginning in 1892, the Brandensteins moved to a large residence at 2005 Franklin Street (extant), a home constructed the year before and presumably commissioned by the Brandensteins. They lived on Franklin Street until 1904.

Max Brandenstein founded the M.J. Brandenstein Company (later MJB Coffee Company) c. 1893, serving as the first president until brothers Manfred, Edward, and Charles joined the leadership team. The MJB Coffee Company was the third major coffee firm established in San Francisco, producing alongside other early coffee producers Folgers and Hills Brothers. Soon after the Gold Rush, San Francisco became the main import and distribution center for coffee in the western United States, and coffee became one of the city's most successful industries.[25] The first coffee-production center in San Francsico was William Bovee's Pioneer Steam Coffee and Spice Mill at Powell and Broadway, built in 1850.[26] Bover hired James Folger, who sold coffee in the mining towns throughout California. In 1872, Folger and his two brothers bought out Bover and established J.A. Folger & Co.[27] Hills Brothers was established in 1878 when brothers A.H. and R.W. Hills began selling coffee and tea in a market stall in San Francisco. The company became Hills Brothers' Arabian Coffee and Spice Mills in 1882. In 1900, Hills Brothers introduced the method of vacuum-packing their beans, which continues to be the most widely used coffee-packaging method today.[28]

Max J. Brandenstein and his brothers owned and operated MJB Coffee until Max's death in 1925. The MJB Coffee exhibit at the 1915 Panama-Pacific International Exhibition, described as an "ultramodern coffee parlor," featured an enormous coffee cup and saucer on the roof, emblazoned with the word "WHY?"—the famous MJB slogan developed by Max's brother, Manfred.[29]

[24] Joan Levy, "De Sabla Left His Mark Even after a Short Stay," *The Daily Journal*, July 31, 2006.

[25] Susan Saperstein, "San Francisco Coffee Roasters," *Guidelines: Newsletter for San Francisco City Guides and Sponsors*, http://www.sfcityguides.org/public_guidelines.html?article=595&submitted=TRUE&srch_text=&submitted2=&topic=Food (accessed January 13, 2016).

[26] Ibid.

[27] Folgers, "Explore the Rich Folgers History," Folgers Coffee website, http://www.folgerscoffee.com/about-us/folgers-history (accessed January 13, 2016).

[28] Hills Brothers, "A Taste of San Francisco," Hills Brothers website, http://www.hillsbros.com/history/ (accessed January 14, 2016).

[29] Daniel Schifrin, "Then and Now: MJB Helped Fuel S.F. Coffee Culture," *Jweekly.com*, April 19, 2012.

Folgers, Hills Brothers, and MJB Coffee are still produced today, though not in San Francisco. MJB Coffee was purchased by Nestle in 1985 and by Sara Lee Corporation in 1999.

Max Brandenstein and his family moved to 1916 Octavia Stret in 1909, purchasing the house from Eugene de Sabla Jr. They stayed there for 16 years until Max's death.

Clara Herrscher and Emma Friendly (Owners, c. 1929-1944)

Beginning c. 1929, the house was owned by Clara Herrscher, widow of Joseph Herrscher. Herrscher lived in the house with her daughter and grandson, Emma and Melvyn Friendly, her sister, Lilly Hesser, and two servants.[30] The Herrscher/Friendly families lived in the house through 1944.

Other Owners (1945-2016)

Beginning in the mid-1940s, 1916 Octavia Street was converted into an apartment house/long-term resident hotel and later a care facility. From at least 1977 to 1993, a care facility called Pacific Heights Manor was located in the building. Academy of Art University purchased the property in 1995.

Table 3 presents data available in city of San Francisco directories for all known owners and occupants of the property.

[30] Ancestry.com, 1930 and 1940 United States Federal Census [database on-line] (Provo, UT, USA): Ancestry.com Operations, Inc., 2012.

TABLE 3 OWNER/OCCUPANT HISTORY

1069 Pine Street		
Date	Name	Source
1899-1902	Adolph Mack	Crocker-Langley and R.L. Polk & Co.
1902-1909	Eugene J. de Sabla Jr.	R.L. Polk & Co.
1909-1925	Max J. Brandenstein	R.L. Polk & Co.
c. 1929-1944	Clara Herrscher/Emma Friendly	R.L. Polk & Co.
1945	Officers Residence Club	SFC Classified
1948-1963	Lafayette Park Residence Club	SFC; SFC Classified
1967-1972	Lafayette Park Retirement Home	Pacific Telephone
1977-1993	Pacific Heights Manor (care facility)	Pacific Telephone
1995-2016	Academy of Art University	AAU

ARCHITECT/BUILDER

Frederick Herman Meyer (Architect)

Frederick Herman Meyer was born in San Francisco in 1876, the son of a German cabinet-maker. With no formal training in architecture, Meyer gained experience through apprenticeships.[31] One of his first positions was as a draftsman at a San Francisco planing mill. He was a draftsman in the office of Campbell in Pettus before forming his first firm, Meyer & Newsom, with prominent Bay Area architect Samuel Newsom in 1898. Their partnership was short-lived, with Meyer breaking out on his own in 1901 and in 1902 joining Smith O'Brien to form Meyer & O'Brien; that firm lasted until 1908. Following that, Meyer worked independently until 1912.

Meyer's biography in his collection at the UC Berkeley College of Environmental Design Archives describes him as "a prolific designer, responsible for many of the buildings designed in the San Francisco area after the 1906 earthquake and fire."[32] Perhaps his most notable achievement was a partnership in 1913 with architects John Galen Howard and John Reid Jr., on the San Francisco Civic Center Commission, a team appointed by Major Jim Rolph's administration to oversee the design and supervision of the new San Francisco Civic Center plan. Meyer was part of the team that designed the Panama-Pacific International Exposition Auditorium in the Civic Center (now the Bill Graham Auditorium).[33] Some of his noteworthy buildings are the 19-story Humboldt Bank at 785 Market Street, constructed in 1908 (Category I, Article 11 Building) and the ten-story Monadnock Building at 658 Market Street, constructed in 1906 (Category I, Article 11 Building). Both building were "tall buildings for their time and recognized for their innovative use of large glass areas and their incorporation of fire-safety designs and equipment."[34] Meyer's many commissions included public, commercial, and industrial projects, including libraries, hospitals, breweries, and public schools. He designed a house for his family at 2756 Steiner Street in Pacific Heights (extant), where they lived from c. 1910 to 1932.[35]

Some of Meyer's later partnerships were with: Albin R. Johnson (Meyer & Johnson, c. 1920-1926); Dodge A. Riedy (years unknown); W.D. Peugh, Martin Rist, and Timothy L. Pflueger (c. 1938); and Albert John Evers, (1945-c. 1956). Beginning c. 1960, Meyer founded Meyer & Associates with Mark T. Jorgenson and Lawrence H. Keyser. That firm was succeeded by the firms Ashley, Keyser & Runge; Johnson & Runge; and Christopher W. Runge, Architect.

Meyer was the first national vice president of the American Institute of Architects (1937-1938). He was inducted into the AIA Fellowship in 1934, one of the highest honors the AIA can bestow upon its members. Meyer passed away in Marin County in 1961.

[31] Frederick H. Meyer Collection, (1976-1), Environmental Design Archives, University of California, Berkeley (Berkeley, California).

[32] Ibid.

[33] Alan Michelson, Pacific Coast Architecture Database, 2005-2015.

[34] Frederick H. Meyer Collection.

[35] Michelson.

Mallory & Swenson (Builder)

John E. Mallory and Siegfried E. Swenson founded Mallory & Swenson, a construction company, c. 1897.[36] Siegfried Swenson was born in Sweden c. 1870.[37] As for John Mallory, no information was found in census data or city directories to tell us about his past.

Mallory & Swenson appeared to be fairly prolific in the period from 1897 to 1905. They were awarded contracts for single-family residences and commercial buildings throughout the city. Examples of their projects include: a California Red Cross Association convalescence hospital in the Presidio, designed by architects Newsom & Meyer (1898)[38]; three-story residence on Divisadero, south of Broadway, designed by architect Julius Krafft (1900)[39]; three-story residence at Pacific and Steiner, designed by architects Salfield & Kohlberg (1900);[40] five-story brick building at Sutter and Taylor, designed by architect William Mooser & Son (1901);[41] three-story brick residence at Broadway and Fillmore, designed by architect Julius Krafft (1901); two residences at Pacific and Laguna for J.D. Spreckels, designed by architects Reid Brothers (1904);[42] and a single-family residence in the Outer Sunset at 1340 47th Ave.[43]

After the 1906 earthquake, Siegfried Swenson joined Johnson (first name unknown) to form Swenson & Johnson contractors. It is unclear what happened to John Mallory after the earthquake. In 1905, he was living at the famous Russ House hotel. After that he disappears from city directories.

CALIFORNIA REGISTER SIGNIFICANCE EVALUATION

The CRHR is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.

[36] Various San Francisco City Directories.

[37] Ancestry.com, 1910 United States Federal Census [database on-line] (Provo, UT, USA): Ancestry.com Operations Inc., 2006.

[38] "Builders' Contracts," *San Francisco Call*, August 23, 1898.

[39] "Builders' Contracts," *San Francisco Call*, May 19, 1900.

[40] "Builders' Contracts," *San Francisco Call*, October 12, 1901.

[41] "Builders' Contracts," *San Francisco Call*, November 25, 1901.

[42] "Builders' Contracts," *San Francisco Call*, August 8, 1904.

[43] Kelley & VerPlanck, DPR 523 Forms for 1340 47th Avenue, November 28, 2008.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting – the physical environment of a historic property;
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time;
7. Association – the direct link between an important historic event or person and a historic property.

Resources eligible for the NRHP, under the corresponding Criteria A, B, C, and D, are automatically listed in the CRHR.

Evaluation, Criterion 1

At the neighborhood level, the residence at 1916 Octavia Street is one of many residential properties associated with late-nineteenth-century architectural development in Pacific Heights. The building is one of only two nineteenth-century buildings on the 1900 block of Octavia Street. New construction on the block over time, especially between 1913 and 1929, has resulted in a non-cohesive collection of apartment buildings and single-family residences constructed over 70-year period. The visual character of both the 1900 block of Octavia and the subject property were further compromised with the introduction of the ten-story Jacqueline Court Apartments at 2055 Sacramento Street in 1975, immediately east of 1916 Octavia Street.

Individually, the residence at 1916 Octavia Street is not an outstanding example of a nineteenth-century residence constructed in Pacific Heights.

Therefore, the building at 1916 Octavia Street does not appear to be eligible for listing in the NRHP or CRHR under Criteria A/1 for an association with early architectural development in Pacific Heights, either as a contributor to a potential district or individually.

Evaluation, Criterion 2

The residence at 1916 Octavia Street is associated with three pioneers of San Francisco industry: Adolph Mack, president for 25 years of Mack & Company, a wholesale drug company; Eugene de Sabla Jr., cofounder and first president of Pacific Gas & Electric; and Max J. Brandenstein, founder of MJB Coffee Company.

Regarding an association with Adolph Mack, Mack lived at 1916 Octavia Street briefly (1899-1902). Research did not reveal that Mack, nor his company Mack & Company, are significant in local, state, or national history. Mack & Company was one of many companies founded in San Francisco in the nineteenth century. Therefore, the residence is ineligible for listing in the CRHR under Criterion 2 based on association with Mack.

Regarding an association with Eugene de Sabla Jr., although the 1916 Octavia Street residence was his primary residence when he cofounded Pacific Gas and Electric in 1905, de Sabla lived in the house briefly (1902-1906). It appears to have been a temporary home while he commissioned a large mansion for his family in San Mateo. Furthermore, de Sabla's significance derives from his associaiton with PG&E, so a more appropriate building encapsulating PG&E history in San Francsico would be the PG&E headquarters building at 201-245 Market Street, completed in 1924 (listed in the NRHP, 1995). For this reason, the residence is ineligible for listing in the CRHR under Criterion 2 based on association with de Sabla.

Regarding an association with Max J. Brandenstein, the Brandensteins lived at 1916 Octavia Street from 1909 until his death in 1925, a period during which he was president of MJB Coffee Company. While MJB Coffee was a successful San Francsico company, it was at least the third company to produce or distribute coffee in San Francisco. By the time MJB Coffee was founded, the coffee industry had been developing by almost half a century. Furthermore, unlike Hills Brothers, which transformed the coffee industry by introducing the innovative method of vacuum-packing beans, MJB does not appear to stand out as significant among the other early producers. Additionally, similar to Eugene de Sabla Jr., Brandenstein's significance is based on his association with MJB Coffee—a significance that would be better conveyed in a building related directly to the company (e.g., production facility or corporate headquarters). Therefore, 1916 Octavia Street's association with Max J. Brandenstein does not qualify the residence for listing in the CRHR under Criterion 2.

Evaluation, Criterion 3

The residence at 1916 Octavia Street is associated with a locally significant architect, Frederick H. Meyer. However, this is not an outstanding example of Meyer's work. He designed the 1916 Octavia Residence very early in his career. Furthermore, alterations to the building—specifically wholesale removal and replacement of original windows, as well as additions to the rear façade—and intrusions into the open space to the south have affected the original 1899 design of the building. Therefore, the building at 1916 Octavia Street does not appear to be eligible for listing in the CRHR under Criterion 3 for an association with architect Federick Meyer.

BIBLIOGRAPHY OF WORKS CITED AND ARCHIVES CONSULTED

Ancestry.com.

Census data and city directories (1870-1940).

City Directory Company

Various San Francisco City Directories. Available at the San Francisco Public Library.

City and County of San Francisco, Department of Building Inspection

Building permits (1924-2010).

City and County of San Francisco Planning Department

2013 *[DRAFT] Neighborhood Commercial Buildings Historic Context Statement: 1865-1965*. Draft Document prepared for the 2012/2013 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department.

Daily Alta California

Various articles (1880-1888).

Environmental Data Resources

Historic aerials.

Ficklin, Marilou West

2009 "Eugene de Sabla and Family." *Nevada County Historical Society Bulletin* 63:1.

Folgers

"Explore the Rich Folgers History," Folgers Coffee website, http://www.folgerscoffee.com/about-us/folgers-history (accessed January 13, 2016).

Harris, Cyril M.

1998 *American Architecture: An Illustrated Encyclopedia*. New York: WW Norton.

Hills Brothers

"A Taste of San Francisco," Hills Brothers website, http://www.hillsbros.com/history/ (accessed January 13, 2016).

Issel, William and Robert Cherny

1986 *San Francisco, 1865-1932: Politics, Power, and Urban Development*. Berkeley, Calif.: University of California Press.

Kelley & VerPlanck

2008 DPR 523 Forms for 1340 47th Avenue.

Levy, Joan

2006 "De Sabla Left His Mark Even after a Short Stay." *The Daily Journal*.

McAlester, Virginia and Lee

1984 *A Field Guide to American Houses*. New York: Alfred A. Knopf.

Michelson, Alan

2015 Pacific Coast Architecture Database.

National Park Service, Department of the Interior.

1990 *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*. Washington DC: National Register Branch.

1991 *National Register Bulletin 16A, How to Complete the National Register Registration Form*. Washington DC: National Register Branch.

2010 "De Sabla, Eugene J., Jr.Teahouse and Garden." Asian Pacific American Heritage Month, National Park Service, www.nps.gov/nr/feature/asia/2010/sabla_tea_house.htm (accessed November 13, 2015).

Nelson, Lee H.

1982 *Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Heritage Preservation Services, National Park Service, Department of the Interior, Washington, DC.

Office of Historic Preservation

1995 "Instructions for Recording Historical Resources." Sacramento: State Office of Historic Preservation.

Sanborn Fire Insurance Company

Fire insurance maps of San Francisco (1886-1948).

San Francisco Call

Various articles (1898-1909).

San Francisco Chronicle

Various articles (1898-1913).

San Francisco Heritage

Heritage archives.

San Francisco Public Library

San Francisco History Room archives.

Saperstein, Susan

"San Francisco Coffee Roasters," *Guidelines: Newsletter for San Francisco City Guides and Sponsors*, http://www.sfcityguides.org/public_guidelines.html?article=595&submitted=TRUE&srch_text=&submitted2=&topic=Food (accessed January 13, 2016).

Schifrin, Daniel

2012 "Then and Now: MJB Helped Fuel S.F. Coffee Culture." *Jweekly.com*.

Starr, Kevin

2005 *California: A History*. New York: Modern Library.

UC Berkeley

Frederick H. Meyer Collection, (1976-1). Environmental Design Archives, University of California, Berkeley. Berkeley, California.

Whiffen, Marcus

1969 *American Architecture Since 1780*. Cambridge, MA: MIT Press.

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

Part I Historic Resources Evaluation, 1069 Pine Street, San Francisco, California

SWCA Environmental Consultants/Turnstone
330 Townsend Street, Suite 216, San Francisco, CA 94107

May 2016

This page intentionally left blank.

TABLE OF CONTENTS

FIGURES

EXECUTIVE SUMMARY

Project Background

This Historic Resource Evaluation (HRE) was prepared by SWCA Environmental Consultants/Turnstone (SWCA) at the request of the Academy of Art University (AAU) in conjunction with the San Francisco Planning Department. This HRE forms part of the Existing Sites Technical Memorandum (ESTM) currently being prepared by SWCA for AAU. Prepared separately as a broader study, the ESTM includes historic resource evaluations (Part 1 HREs) for 26 AAU-owned and operated properties. Among these 26 properties, a total of 22 are Category A properties in the City and County of San Francisco (i.e., known historical resources) and 4 are Category B properties (i.e., properties of age but unevaluated).

Per the guidance of the San Francisco Planning Department, SWCA evaluations of the four Category B properties have been documented in comprehensive HREs meeting the requirements of the San Francisco Planning Department. These four HREs include evaluations of: (1) 1727 Lombard Street (Star Motel); (2) 1916 Octavia Street; (3) 1069 Pine Street; (4) 2340 Stockton Street. This HRE presents the results of the evaluation of 1069 Pine Street.

Properties that were found eligible as historical resources pursuant to San Francisco Planning Department policy and the California Environmental Quality Act (CEQA) have been carried forward for Part 2 HREs, for project-level analysis of compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (*Secretary's Standards*), as well as San Francisco Planning Department guidelines for historic properties (including for Article 10 Historic Districts and Article 11 Conservation Districts). Where past alterations to the properties were found in noncompliance with the *Secretary's Standards* and/or San Francisco Planning Code Article 10/Article 11 guidelines, recommendations for project modifications have been made, in order to facilitate compliance with the *Secretary's Standards* and San Francisco Planning Department policy. The analysis of alterations included the exterior of the properties, both on primary and secondary elevations, and interior spaces that were historically accessible by the public.

Project Team

The four extended HREs of Category B properties were compiled and prepared by architectural historian Shayne Watson and coauthored by Ms. Watson, Debi Howell-Ardila (SWCA Senior Architectural Historian) and Steven Treffers (SWCA Architectural Historian). Research assistance was provided by SWCA architectural historians Natalie Loukianoff and David Greenwood. Senior oversight and review were provided by Ms. Howell-Ardila and Dr. John Dietler, California Cultural Resources Program Director.

Findings

The commercial building at 1069 Pine Street does not appear eligible for listing under designation criteria at the federal, state, or local level, either individually or as a part of a historic district.

INTRODUCTION

The subject property is a 1921 commercial building located at 1069 Pine Street, near the corner of Pine and Jones Streets in Nob Hill. The Assessor's Parcel Number (APN) is 0275008. The lot size is 7,749 square feet. The building is located within an RM-4 (Residential-Mixed, High Density) zoning district.
Academy of Art University acquired the property in 2000.

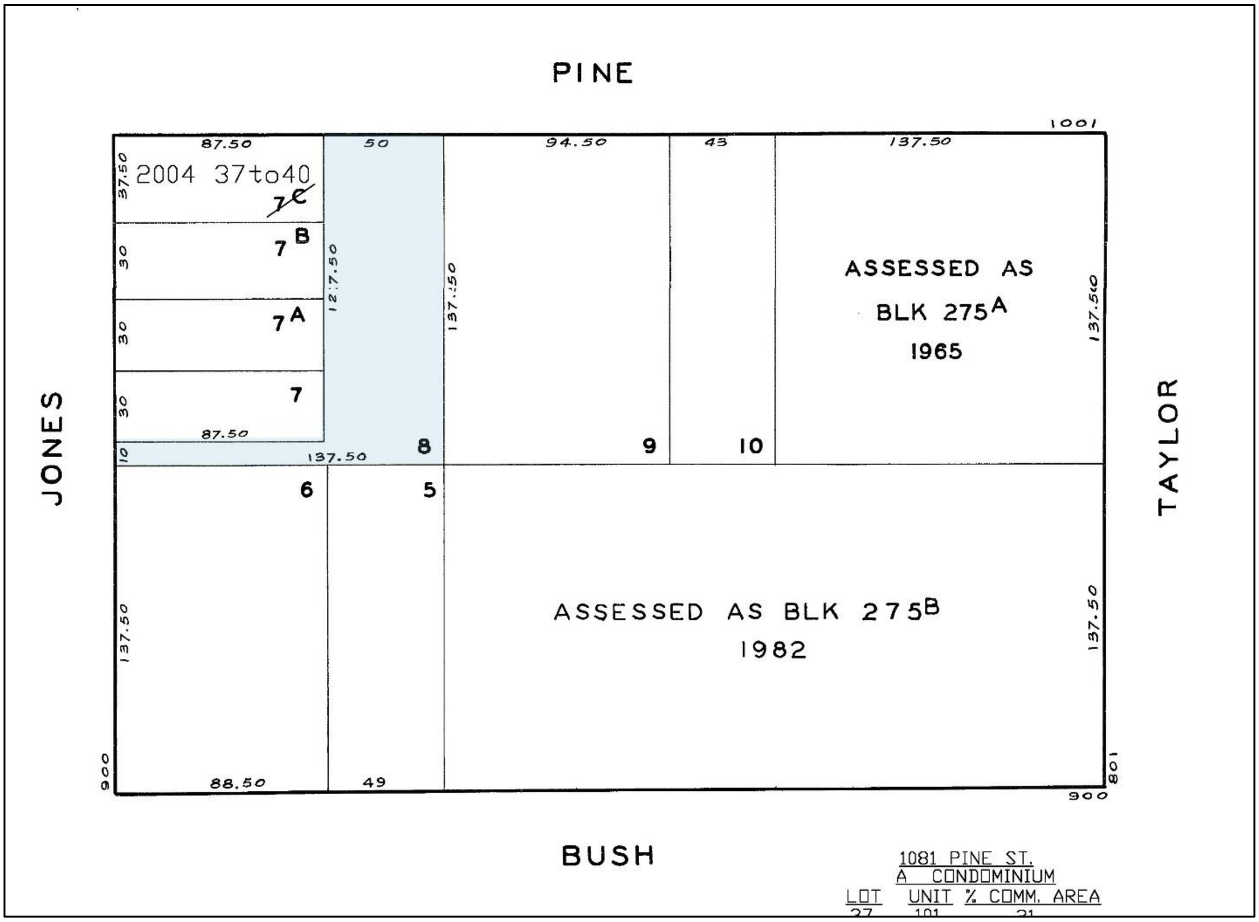


Figure 1. Project Location, Assessor’s Parcel Map, City and County of San Francisco. The blue polygon marks the location of 1069 Pine Street. Source: City and County of San Francisco, edited by author, 2016.

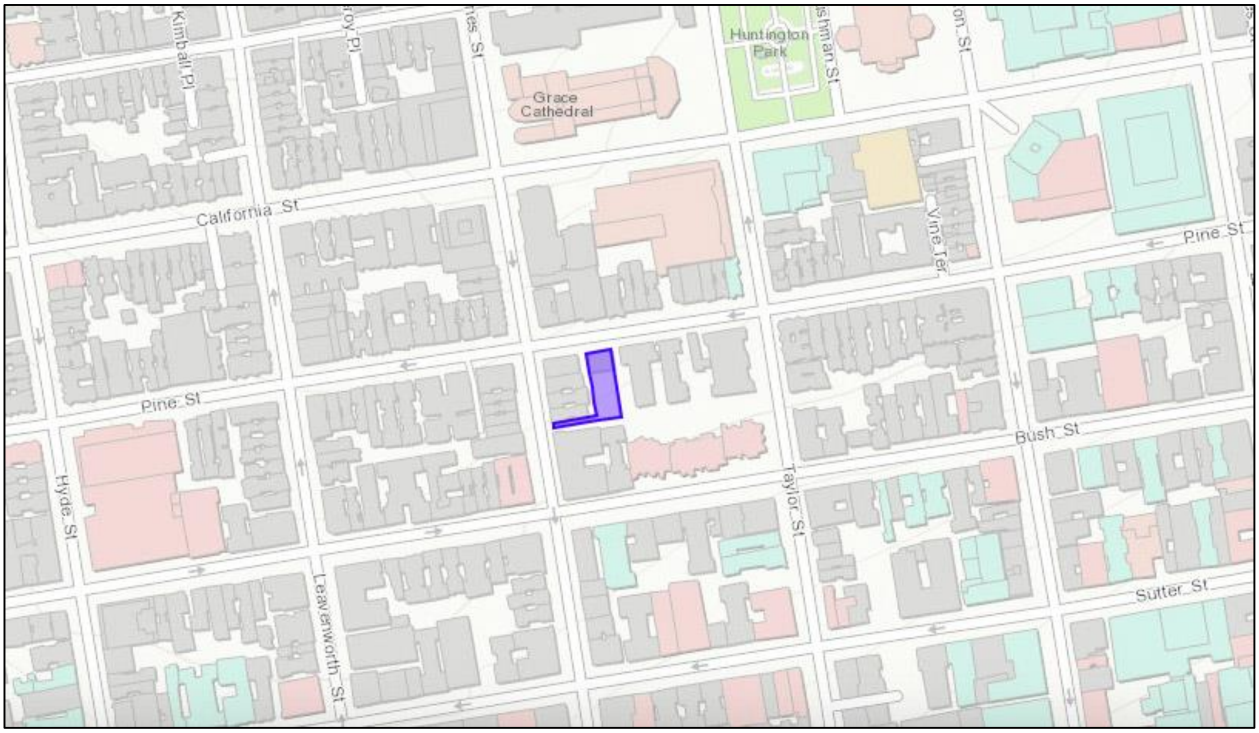


Figure 2. Project Vicinity. Blue polygon marks the location of 1069 Pine Street, in Pacific Heights. Source: City and County of San Francisco Property Information Map, 2016.

Current Historic Status

The property is a “Category B” property, a property that is age-eligible but has not yet received a CEQA historical resource status. According to records on file with the San Francisco Planning Department, the property has not been previously surveyed.

Adjacent Historical Resources

The following describes known historical resources adjacent to 1069 Pine Street, within a radius of one block.

Directly adjacent to the east, the neighboring property, a five-story residential building at 1055 Pine Street (1910), has been determined to be individually eligible for listing in the NRHP (2S2). Across the street from the subject property, a four-story residential building at 1060 Pine Street (1909) has a Category A status (Historic Resource Present) based on 1976 and 1978 survey ratings. One block to the south, on Bush Street, is the northern boundary of the Lower Nob Hill Apartment Hotel Historic District, listed in the National Register of Historic Places on July 31, 1991. These properties, as well as other known historical resources adjacent to the proposed project site, are listed in Table 1.

TABLE 1 ADJACENT HISTORICAL RESOURCES, 1069 PINE STREET

Resource Name/Address	Construction Date	Criteria (CRHR/NRHP)	Current Historic Resources Status
1055 Pine Street	1910	NRHP	Individually eligible
1060 Pine Street	1909	N/A	Category A – Historic Resource Present (1978 SF Heritage Survey Rating C; 1976 DCP Survey Rating Y)
Lower Nob Hill Apartment Hotel Historic District	1906-1940 (POS)	NRHP	Historic district

Lower Nob Hill Apartment Hotel Historic District

The Lower Nob Hill Apartment Hotel Historic District was listed in the National Register under Criterion A as an "intense concentration of the dwellings of great numbers of persons, many of them white collar workers in the city's retail and financial centers, which were the largest and most important in all of California during most of the period of significance; and under Criterion C as a "very large, virtually intact, architecturally consistent, densely packed inner city residential area hardly matched anywhere in California."[1] The district's period of significance begins in 1906, when the earthquake and fires decimated the area and necessitated wholesale rebuilding; it ends in 1940, an "arbitrary date," according to nomination author Anne Bloomfield, because the district's social significance continued up until the nomination was written in 1988 (revised 1990). Bloomfield notes 1915 as another period of significance as the year of the Panama-Pacific International Exposition, "for whose builders and visitors many of the district's buildings were constructed."[2]

Bloomfield describes the historic district boundaries:

> The west and northwest boundary is the edge where contributing residential buildings are stopped by developments that are totally commercial, industrial, medical or new. The north boundary is part of the line drawn by City ordinance after the 1906 fire, the line within which all buildings were required to be of fireproof construction. The east and southeast boundary is the edge where contributing residential buildings are stopped by the contrasting building types of Chinatown, the city's financial district, its major retail district, and/or its clubs district. The south boundary is topographical and psychological: the district is located on a hillside which levels out about Post Street.
>
> South of the district the terrain is flat or nearly so. This Tenderloin area to the south differs from Lower Nob Hill in having a much more intense distribution of commercial uses and large commercial buildings, a historic image of legal, extra-legal and illegal entertainment activities, in a somewhat different time/style emphasis of its buildings, in social distinctions between the residents, and in better average condition and integrity in Lower Nob Hill.[3]

[1] Anne Bloomfield, National Register of Historic Places Registration Form, Lower Nob Hill Apartment Hotel Historic District, August 31, 1988 (revised May and December 1990), 3.

2 Ibid.

3 Ibid., 4.

Bloomfield summarizes the character-defining features of the historic district's contributing buildings:

> a close-packed district consisting almost entirely of 3- to 7-story multi-unit residential buildings which fill their entire front lot lines and share a single stylistic orientation. The vast majority were constructed 1906-1925, giving them a remarkable consistency of style. Facade composition is Sullivanesque: in the proportion of wall to windows, in the flat roofs and boldly projecting cornices, in the analogy to a column, and in the placement of ornament. The ornamentation itself is not Sullivanesque but historicist; it varies from one building to the next, usually adapting Classical motifs. Almost all buildings have heavily molded, galvanized iron cornices that cover the parapets and mask the roofs. They also have fire escapes and nearly half have slightly projecting bay windows. Major uses have always been and are now residential: apartments, residential hotels and apartment hotels; there are few office conversions.[4]

In terms of integrity,

> Most of the buildings are nearly intact. Storefront replacement is so universal as to be normal. Quite a few buildings have replacement aluminum sash and/or entry doors, a few have lost their cornices, and at the southwestern edge many have new security gates; there are almost no new buildings. Condition varies all the way from barely habitable to beautifully maintained or newly renovated. The district remains very visibly what it was when constructed 60-80 years ago: the dwelling place of a great many people who can walk to work.[5]

4 Ibid., 2.

5 Ibid.

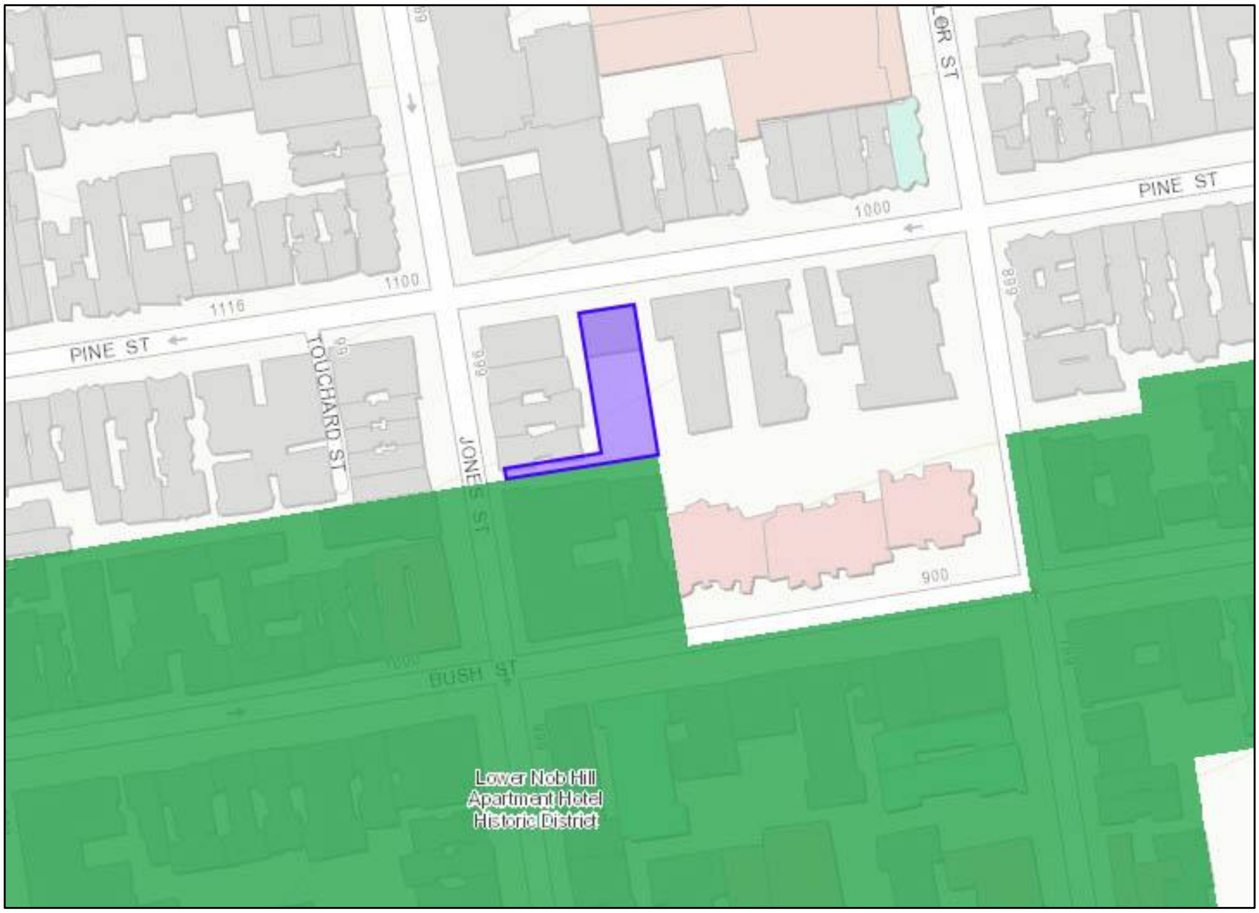


Figure 3. Subject property and the boundary of the Lower Nob Hill Apartment Hotel Historic District enclosed in green. Source: San Francisco Property Information Map, 2016.

ARCHITECTURAL DESCRIPTION

Exterior Architectural Description

The one-story building at 1069 Pine Street has a rectangular footprint and a flat roof. The building sits at the north end of a rectangular lot, and there is no setback from the sidewalk on Pine Street. Because the lot slopes downward, at the south (rear) façade, the basement level is above ground. The walls of the wood-frame structure are clad in plaster at the north (primary) facade, and wood horizontal drop siding on the west, south, and east facades.

North (Primary) Facade

The north facade is a three-part storefront, which has been modified. Close to the center, there is a recessed entrance with a wood three-light transom above. In the recessed entrance, there is a pair of modern glazed aluminum doors. A folding metal security gate is mounted at the front of the recessed entrance. The eastern section of this facade has a wood transom composed of eight lights, although several of the lights have been covered. These transoms are taller than those of the central entrance bay. In the western section, there is another transom composed of eight lights. These are shorter than those of the central entrance bay. Both the western and eastern sections appear to have been built as storefront windows above bulkheads. The storefront openings have been infilled with plywood panels, some of which are irregular and project. The glazing of the transoms is textured, and some of the lights are awning sash. A simple wood cornice divides the walls above the transoms from the parapet above.

Figure 4. North façade, 1069 Pine Street. Source: SWCA, 2015.

Figure 5. Primary entrance, north façade, 1069 Pine Street. Source: SWCA, 2015.

West and East Facades

There are no openings on the east facade. The west facade abuts the adjacent building and is not visible.

South (Rear) Facade

At the basement level, there are five wood doors with simple wood trim. A wood hood is mounted above the easternmost door. The doors are not aligned and step up the slope of the lot from east to west. The trim and sills of four windows are visible, but the openings have been covered with plywood panels. At the second floor, there are five wood, double-hung windows with horns at the upper sash. The trim and sills are wood, and wood plank shutters flank the openings.

Figure 6. South and east facades, 1069 Pine Street. Source: SWCA, 2015.

Interior Architectural Description

The building is used as a gym, and the interior is composed of several large open spaces, which are filled with equipment. The wood post-and-lintel structure of the building is visible at the interior. The interior sides of the exterior walls are paneled with vertical and horizontal battens at the seams. The interior walls appear to be plaster, and aluminum windows provide views between the rooms. The floor is covered with rubber mat. Fluorescent lights, ceiling fans, and fire sprinklers are mounted to the drop ceiling.

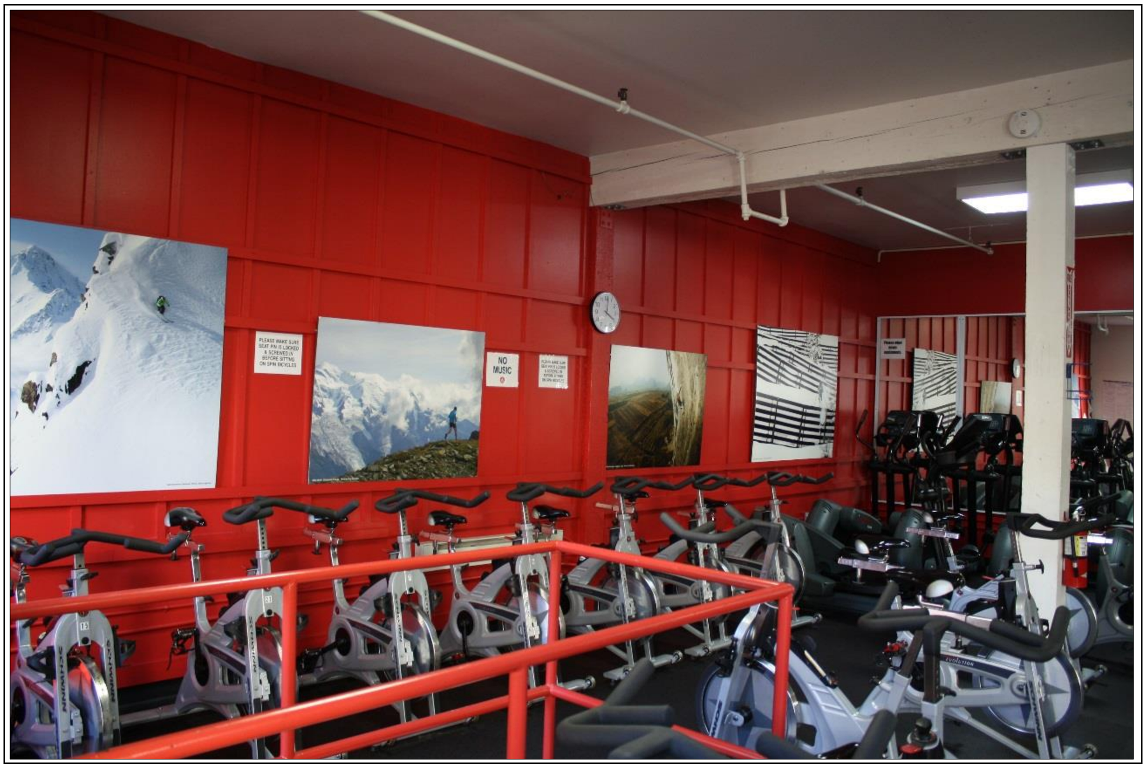


Figure 7. Interior, 1069 Pine Street. Source: SWCA, 2015.

SITE HISTORY

Constructed in 1921, the subject property is a single-story commercial building designed by the San Francisco-based architecture firm, O'Brien Brothers. Building permits indicate that 1069 Pine Street was commissioned by Mary Rocca. Two Mary Roccas lived in San Francisco in 1921—one, the wife of a fisherman, and the second, a widow and mother of Emilio and Mario Rocca, owners of the Rocca Brothers real estate firm. The latter Mary Rocca, the likelier of the two to have been involved in the construction of 1069 Pine Street, was born in New York c. 1864 to Italian immigrants. She was living in San Francisco by the 1910 census, which shows that her son, Emilio, was already in the real estate business.[6] Mrs. Rocca managed residential hotels throughout the city, including the Kensington Apartments at 720 Powell Street in 1921.[7]

Available primary sources (building permits, city directories, and historic maps) and archival research (including at San Francisco Heritage and the San Francisco Public Library) indicate that 1069 Pine Street originally consisted of four individual storefronts, with addresses spanning 1069, 1071, 1073, and 1077 Pine Street. Somtime between 1950 and 1974, Sanborn Fire Insurance Company maps reveal that the property's storefronts were joined at the interior to form a single interior space. This likely occurred c. 1954 when city directories show all of the spaces vacant. The only known use for the building between 1954 and 1971 was storage for the adjacent Callison Hospital in 1971.

[6] Ancestry.com. *1910 and 1920 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc., 2010.

[7] Ancestry.com. *U.S. City Directories, 1822-1995* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2011.

The following paragraphs show how the storefronts at 1069 Pine Street were used from 1923 (the first date found in city directories) and 1953 (when all known tenants left the building and the interior space was subsequently combined).

1069 Pine Street
From 1923 to c. 1935, 1069 Pine Street housed a dressmaking and tailor shop. Following that, it was a beauty shop until 1940; a florist until 1943; and a barber shop until 1949. The space very briefly was associated with the Royal Cheesecake shop (1952) and the Pine Hill Gift Shop (1953).

1071 Pine Street
From 1923 to c. 1935, 1071 Pine Street housed a milliner. This period coincides exactly with the dressmaking/tailor shop at 1069 Pine Street. The storefront use between 1936 and 1947 was either vacant or unknown. From 1948 to c. 1953, the space was used for vending-machine (musical, likely jukebox) sales.

1073 Pine Street
From 1923 to c. 1937, 1071 Pine Street housed a barber shop. A florist operated in the space in 1939-1940; a beauty shop in 1945; and a dressmaker in 1948-1949.

1077 Pine Street
From 1921 until c. 1953, 1077 Pine Street housed a restaurant and delicatessen.

Known alterations to the building include the following:

- Conversion of four storefronts into a single interior space, c. 1954 (no permit);
- Partial replacement of ground-level doors at south façade, date unknown (no permit);
- Original windows at ground floor of south façade infilled or covered, date unknown (no permit);
- Original storefront windows, entrances, and transoms removed or covered in 2001 (AAU, Memo to SWCA, 2/2/2016); and
- ADA accessible entrance added, 2001 (permit no. 200104247629).

The following Sanborn Fire Insurance Company maps and historic aerial images present a visual overview of the property’s construction chronology. Following the figures, Table 2 lists all permitted alterations to the subject property.

Figure 8. 1938 historic aerial photograph, 1069 Pine Street. Source: Environmental Data Resources, 2015.

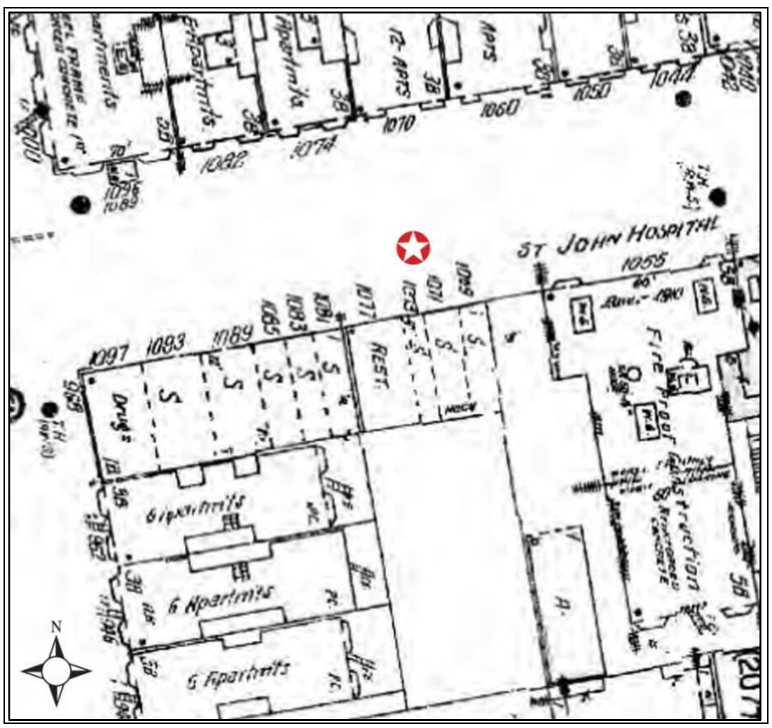


Figure 9. 1948 Sanborn Fire Insurance Map, 1069 Pine Street. Source: Environmental Data Resources, 2015.

Figure 10. 1968 historic aerial photograph, 1069 Pine Street. Source: Environmental Data Resources, 2015.

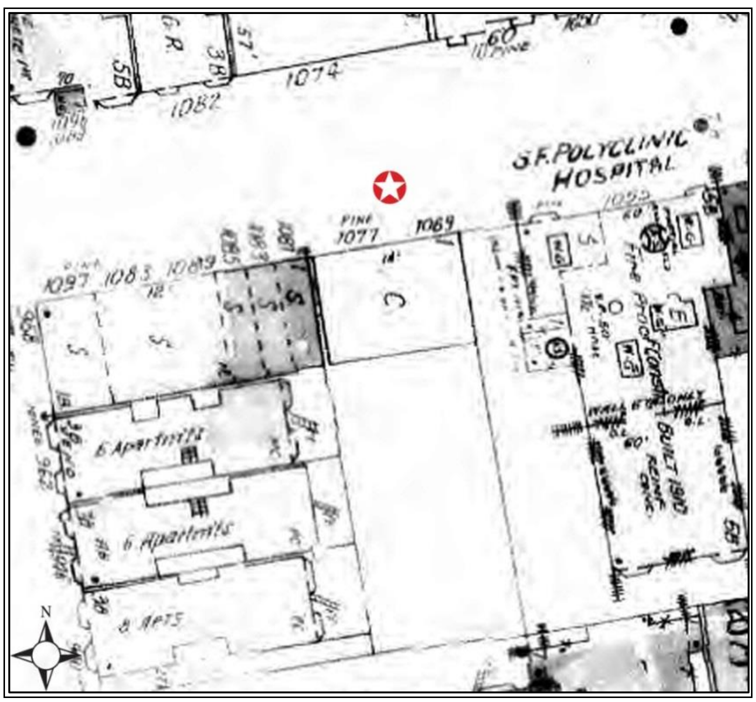


Figure 11. 1974 Sanborn Fire Insurance Map, 1069 Pine Street. Source: Environmental Data Resources, 2015.

TABLE 2 BUILDING PERMITS, 1069 PINE STREET

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 12, 1921	102660	Mary Rocca	O'Brien Brothers Inc.	$6,000	Construct stores building measuring 50 ft. by 37 ½ ft.
Jul. 18, 2001	200104247629 (844332)	AAU	Tom + Aguila (Douglas Tom)	$15,000	Install full height partition and new accessible entrance to comply with ADA requirements.
Sept. 27, 2010	201009080457 (1222165)	AAU	Unknown or N/A	$7,000	To comply with #201051136; and to complete work and obtain final inspection for work under #2001042.
Jan. 23, 2013	S.F. Property Info Permit: 201301238537	AAU	Unknown or N/A	$1	To comply with complaint 201050891. To document change of use under planning code section 182 © in response to complaint.

FOCUSED NEIGHBORHOOD CONTEXT

Nob Hill

In their book, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (1986), historians William Issel and Robert Cherny identify seven distinct neighborhoods that existed or were developed in San Francisco from the mid-19th century to World War I: South of Market, Mission District, Western Addition, Nob Hill-Pacific Heights, Chinatown, North Beach, and Downtown. Each neighborhood was distinct in terms of demographics and character. Nob Hill was "distinctly upper-class."[8]

Nob Hill was first developed in the mid-19th century as a response to South Park, the city's first elite enclave, being made less desirable by increasing industrialization in the surrounding South of Market area. San Francisco's middle- and upper-class residents first built homes on the lower slopes of California Street Hill, later called Nob Hill.[9] The last quarter of the century saw even more development on Nob Hill and adjacent Pacific Heights when cable cars made the peaks of San Francisco's hills more accessible. Beginning in the 1870s, railroad and mining magnates Charles Crocker, David Colton, James Flood, Mark Hopkins, and Leland Stanford built mansions on the peak of Nob Hill.[10]

To the south of the Nob Hill mansions was a large district of more modest, one- and two-story single-family homes, wood-frame construction and most constructed by the 1870s.[11] The area was largely residential, with some commercial businesses located near major intersections.

After the 1906 earthquake and fires, some parts of San Francisco were decimated while some remained almost wholly intact. Downtown, South of Market, Chinatown, and most of North Beach were destroyed and rebuilt relatively quickly atop the previous street grid, platted in 1847.[12] Large parts of the Mission District, Western Addition, and Pacific Heights survived intact. Fire consumed nearly all of the buildings on Nob Hill, leaving a "clean slate for new construction."[13]

Post-earthquake rebuilding began immediately on the Nob Hill streets and parcels that existed pre-1906. City ordinances requiring fire-resistant new construction in Nob Hill pushed many building owners to maximize their investments, resulting in the construction of hundreds of three- to seven-story multi-family apartment buildings.[14] The first major wave of rebuilding in Nob Hill occurred right after the earthquake. The second was in the 1910s in anticipation of the 1915 Panama-Pacific International Exposition. The last wave, in the early 1920s, saw the construction of many of the existing apartment and hotel buildings, "aimed at a variety of tenants, from high society to low-paid workers to travelers," notes Bloomfield.[15] Historian Paul Groth's research shows that apartment building rents on the south slope of Nob Hill in the first half of the 20th century were high. Nob Hill, according to Bloomfield, was "where the middle-class worker could claim respectability as opposed to the rougher 'entertainment' [Tenderloin] district below."[16]

---

[8] William Issel and Robert Cherny, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (Berkeley: University of California Press, 1986), 58.

[9] Ibid., 69.

[10] Ibid.

[11] Bloomfield, 8.4.

[12] Kevin Starr, *California: A History* (New York: Modern Library, 2005), 176.

[13] Bloomfield, 8.4.

[14] Ibid., 8.5.

[15] Ibid., 8.4a.

[16] Ibid., 8.4d.

1000 Block of Pine Street

Prior to the 1906 earthquake, the 1000 block of Pine Street, flanked by Jones and Taylor Streets, was fully developed with a dense row of two and three-story residences at the north, and larger single- and two-story residences and boarding houses at the south. The blocks to the east and west were similar in character, filled predominantly with single-family residences. One block to the north, on California Street, were the Crocker, Colton/Huntington, Flood, Hopkins, and Stanford mansions. To the south, Sutter Street contained a larger number of non-residential uses, including medical offices, hotels, boarding houses, saloons, and other commercial uses.

By 1913, the Sanborn Fire Insurance Company map shows the south side of the block as only partially rebuilt. There were two buildings: the McNutt Hospital, a five-story building at 1053 Pine Street; and the Bella Vista Hotel at the east corner, a four-story building that replaced a hotel of the same name that existed on the site from at least 1886. The parcel at 1069 Pine Street was vacant. The north side of the block was almost fully rebuilt and decidedly different in character: mostly three-story apartment buildings and flats.

By 1948, the Sanborn map shows the south side of the block as fully developed with a combination of residential and commercial buildings. The Bella Vista had been converted to an apartment building, and the McNutt Hospital was St. John Hospital. There was a large apartment building at 1035 Pine Street and commercial building at the west corner. The subject property at 1069 Pine Street was a commercial building containing four storefronts. The north side of the block was unchanged since 1913.

After 1948, some buildings on the block were demolished and replaced with new construction, but for the most part the pre-1950 character remains intact.

OWNER/OCCUPANT HISTORY

Numerous tenants have occupied the storefronts in the commercial building at 1069 Pine Street from its construction in 1921. Only two people were associated with businesses in the building for longer than ten years: barber Frank Trero, who worked in the building from at least 1936 to 1949; and Mrs. Florence Knauff, cook at a delicatessen at 1077 Pine Street from 1936 to 1947. A milliner shop, owned or operated by multiple people, was located at 1071 Pine Street from at least 1923 through 1935. The storefront at 1077 Pine Street housed a restaurant and delicatessen at least 1923 through 1953; the restaurants were owned or operated by at least seven different individuals.

The following paragraphs highlight the individuals who were associated with businesses at 1069 Pine Street for at least five years. Table 3 presents data available in city of San Francisco directories for all known owners and occupants of the property.

Margaret Cowig

Born in San Francisco in 1882 to Irish parents, Margaret Cowig was a milliner and dressmaker in at least the 1920s and 1930s.[17] In 1920, she was living with her sister and brother-in-law in a house on Lake Street. She worked in the dressmaking and milliner shops at 1069 and 1071 Pine Street from at least 1925 to 1933.

Frank Trero

A barber in San Francisco from at least the 1930s through the 1950s, Frank Trero worked in the barber shop located at 1073 Pine Street in 1936-1937 and at 1069 Pine Street from 1944-1949. In the 1950s, Trero worked at Bay Meadows Barber Shop (location unknown).

[17] Ancestry.com. *1920 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc., 2010.

Emily Cooley

Emily Cooley, a milliner and dressmaker, worked in the millinery shop at 1071 Pine Street from at least 1923-1929.

William E. Duffin

Born in Utah c. 1899, William Elmer Duffin began his career as a manager in the moving-picture industry.[18] In the 1930s and 1940s, he worked as a sheet-music salesman. In 1944, he worked at Marvel Music Company, jukebox sales. From 1948 to 1953, Duffin was listed in city directories at 1071 Pine Street under the heading "vending machines," likely selling jukeboxes, based on his earlier career.

Ewell E. Bones

Born in California c. 1889, Elmer E. Bones began his career as a streetcar conductor in the early 1920s, but as early as 1926 he was working as a barber. He worked in the barber shop at 1073 Pine Street from at least 1928 to 1933. The 1940 census shows him working in a grocery store. By 1945, he had returned to his earlier career in the streetcar industry and was serving as a conductor for San Francisco's municipal railway.

Mrs. Grace Ada Jewett

Born in California c. 1889, Ada Jewett began her career as a stenographer for a tannery in San Francisco. By 1920, she was a housekeeper.[19] From 1925 to 1930, Jewett ran a delicatessen at 1077 Pine Street. By 1940, the census shows Jewett a resident of the Mendocino State Hospital for the Insane in Ukiah.

Florence E. Knauff

Born in Ohio c. 1879, Knauff worked at a delicatessen on Union Street as early as 1924.[20] In the early 1930s she worked at a grocery. She was the cook at a delicatessen at 1077 Pine Street from 1936 to 1947.

[18] Ibid.

[19] Ibid.

[20] Ancestry.com. *1930 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc., 2002.

TABLE 3 OWNER/OCCUPANT HISTORY

1069 Pine Street		
Date	Name	Source
1923-1934	Hemstitching, dressmaking, and tailor shop; names associated with store: Arthur Thompson (1923); Margaret Cowig (1925-1930); Ann C. Aggler (1931-1932); Kastner's Quality Shop (1933); Dresses, Frank Kernv (1934)	R.L. Polk & Company
1936-1940	Beauty shop (Hannah and William Land); Pine Street Beauty Salon (1940)	R.L. Polk & Company
1941-1943	Florist (Ronald Bacchus)	R.L. Polk & Company
1944-1949	Barber shop; names associated with shop Frank Trero (1944-1949); N.R. Jones (1950)	R.L. Polk & Company
1952	Royal Cheese Cake	San Francisco Chronicle Advertisement
1953	Pine Hill Gift Shop	R.L. Polk & Company
1958-1966	Vacant	R.L. Polk & Company/ Pacific Telephone
1971	Callison Memorial Hospital Storage	Pacific Telephone
1071 Pine Street		
Date	Name	Source

1923-1935	Milliner; names associated with shop Mrs. Emily Cooley (1923-1929); Jeanne S. Van Allen (1930); Margaret Cowig (1932-1933)	R.L. Polk & Company
1948-1953	Vending machines (William E. Duffin)	R.L. Polk & Company
1953	L.P. Beauty Salon	R.L. Polk & Company
1958-1971	Vacant	R.L. Polk & Company
1073 Pine Street		
Date	Name	Source
1926-1937	Barber shop; names associated with shop: Romeo Plamondon (1926); Frank Morton (1927); E.E. Bones (1928-1933); Vincent Herrero (1930-1933); Spiros Matarongas (1935); Frank Trero (1936-1937); sold in 1937 (leaving city)	R.L. Polk & Company
1939-1940	Brubaker’s Flowers (Lucille Brubaker, florist)	R.L. Polk & Company
1941	Vacant	San Francisco Chronicle Classified
1945	The New Acquaintance Club; Beauty shop (Jeanne Darling); Juanita La Homas (fortune teller)	San Francisco Chronicle Classified
1948-1949	Dressmaker (Elsie Steffen)	R.L. Polk & Company
1953-1962	Vacant	R.L. Polk & Company
1077 Pine Street		
Date	Name	Source

1923-1953	Restaurant and delicatessen; names associated with business: Jerome Blair (1923); Mrs. Ada Jewett (1925-1930); Clark's Home Cooking, Mrs. Catherine Clark (1932-1934); Keg Buffet, J.V. Sherman and Jack Thrall (1935); Mrs. Florence E. Knauff (1936-1947); Margamy's Country Kitchen, Amy K. Davis and Margaret Redford (1948-1949); Pine Hill Pantry, Rita Gram (1953)	R.L. Polk & Company
1958-1966	Vacant	R.L. Polk & Company
1977	Polyclinic Painters Shop	R.L. Polk & Company

ARCHITECT/BUILDER

The O'Brien Brothers, established by Walter J., Albert T., and Arthur T. O'Brien, completed a wide range of commissions throughout San Francisco between 1907 and 1935. The firm is perhaps best known in San Francisco for their many auto-related commissions, including excellent extant examples of auto showrooms and garages.[21] In a 2009 evaluation, the O'Brien Brothers were thus described by architectural historian William Kostura:

> O'Brien Brothers consisted of Walter J., Albert L. and Arthur T. O'Brien, and practiced in San Francisco from 1907 through 1935. In 1925, after the deaths of his brothers, Walter J. O'Brien began working with Wilbur D. Peugh; the firm ultimately became known as "O'Brien Brothers and Wilbur D. Peugh."
>
> O'Brien Brothers had a diversified practice concentrating on industrial and commercial buildings, but also including many apartment buildings and residences. Auto related buildings were only a small percentage of their output, but it might be accurate to say that they made a specialty of designing this building type. O'Brien Brothers, in fact, probably designed more buildings for the automobile industry than did any other San Francisco architectural firm. Their outstanding building of this type is the Palace Garage, at 111-127 Stevenson Street (1921). Other fine garage buildings by them include 1419 Pacific Avenue (1913-1914), 525 Jones Street (1922), and 640 O'Farrell Street (1924). Their Pickwick Hotel at 5th and Mission (1925) included a bus depot….These buildings were designed in prevailing styles such as Classical Revival and Tudor Revival that were adapted to automotive needs. Wide expanses of industrial steel sash windows allowed generous amounts of light for automotive work and gave these buildings a functional or industrial feeling that was enlivened by the historical ornament.[22]

The building/contractor for 1069 Pine Street is unknown.

CALIFORNIA REGISTER SIGNIFICANCE EVALUATION

The CRHR is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

[21] William Kotsura, Department of Parks and Recreation Forms, 1641 Jackson Street, San Francisco, California, December 2009.

[22] Ibid.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting – the physical environment of a historic property;
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time;
7. Association – the direct link between an important historic event or person and a historic property.

Resources eligible for the NRHP, under the corresponding Criteria A, B, C, and D, are automatically listed in the CRHR.

Evaluation, Criterion 1

The building at 1069 Pine Street does not appear to be reflective of significant development trends in this part of Nob Hill. Anne Bloomfield studied the area as part of her NRHP nomination of the Lower Nob Hill Apartment Hotel Historic District (1988/1990) and identified significance related to the neighborhood's unique, mostly residential character. The building at 1069 Pine Street was one of dozens of small commercial buildings in the area and does not retain an association with the significance theme related to multi-family residential buildings in Lower Nob Hill.

The building at 1069 Pine Street reflects the theme of significance related to Reconstruction-era expansion, "Neighborhood Commercial Expansion, 1906-1929," described in the 2013 *Draft Neighborhood Commercial Buildings Historic Context Statement*. However, in light of the eligibility standards described in the context statement, the property does not retain the historic integrity required to convey significance. The building has undergone extensive alterations, including infilling all original storefronts and their materials and features along the primary (north) elevation.

Therefore, the building at 1069 Pine Street does not appear eligible for listing in the CRHR under Criterion 1, either individually or as a contributor to a historic district.

Evaluation, Criterion 2

The building at 1069 Pine Street was associated with many businesses and individuals from 1921 through 1953. Only two individuals were associated with businesses at the property for more than ten years: barber Frank Trero, who worked in the building from at least 1936 to 1949; and Mrs. Florence Knauff, cook at a delicatessen at 1077 Pine Street from 1936 to 1947. Seven individuals were associated with the property for five to eight years. Research did not reveal that any of the businesses or individuals associated with the building at 1069 Pine Street rise to a level of significance required for listing in the CRHR under Criterion 2.

Evaluation, Criterion 3

The building at 1069 Pine Street was designed by notable San Francisco architects, O'Brien Brothers. (Builder is unknown). O'Brien Brothers completed a wide range of commissions throughout San Francisco between 1907 and 1935. They are best known in San Francisco for their many auto-related commissions, including excellent extant examples of auto showrooms and garages (e.g., 66 Page Street, 1641 Jackson Street, and 525 Jones Street). As a ubiquitous, 1920s commercial building, the building at 1069 Pine Street is not a distinctive or outstanding example of O'Brien Brothers' work, nor an outstanding or unique example of commercial architecture in San Francsico. Therefore, the building at 1069 Pine Street does not appear to be eligible for listing in the CRHR under Criterion 3.

DISCUSSION AND RECOMMENDATIONS

Facilities staff indicates the storefronts on the main evaluation were infilled by AAU in 2001 and subsequently permitted in 2010 (AAU, Memo to SWCA 2/2/2015). However, a review of permits on file with San Francisco Department of Building Inspection failed to show conclusively that this work was covered by permit. Archival research to date has failed to identify any photographs depicting the original appearance of the storefronts or original materials/façade design configuration, or the appearance of the façade at the time of AAU acquisition. Therefore, the possibility exists that the change carried out by AAU resulted in a loss of integrity for the property. Had the storefronts been intact, the property might have qualified under CRHR Criterion 1 as an exemplification of neighborhood commercial development in Nob Hill.

The project completed by AAU may have resulted in the removal, damage, and/or destruction of extant character-defining features and would therefore not comply with the SOIS. Should it be determined that the property retained those character-defining features (original windows, bulkheads, or doors) that would have made it eligible for CRHR listing, SOSIS compliance could be achieved through the removal of infill and the restoration of the original rhythm and character of the façade according to documentary evidence.

BIBLIOGRAPHY OF WORKS CITED AND ARCHIVES CONSULTED

Academy of Art University (AAU)

2016 Memorandum to SWCA, Regarding Alteration Chronologies to AAU Properties. 2 Feburary

Ancestry.com.

Census data and city directories (1870-1940).

Bloomfield, Anne.

1988 National Register of Historic Places Nomination Form, Lower Nob Hill Apartment Hotel Historic District.

City Directory Company

Various San Francisco City Directories. Available at the San Francisco Public Library.

City and County of San Francisco, Department of Building Inspection

Building permits (1924-2010).

City and County of San Francisco Planning Department

2013 *[DRAFT] Neighborhood Commercial Buildings Historic Context Statement: 1865-1965*. Draft Document prepared for the 2012/2013 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department.

Environmental Data Resources

Historic aerials.

Harris, Cyril M.

1998 *American Architecture: An Illustrated Encyclopedia*. New York: WW Norton.

Issel, William and Robert Cherny

1986 *San Francisco, 1865-1932: Politics, Power, and Urban Development*. Berkeley, Calif.: University of California Press.

Kostura, William

2009 Department of Parks and Recreation Forms, 1641 Jackson Street, San Francisco, California.

McAlester, Virginia and Lee

1984 *A Field Guide to American Houses*. New York: Alfred A. Knopf.

Michelson, Alan

2015 Pacific Coast Architecture Database.

National Park Service, Department of the Interior.

1990 *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*. Washington DC: National Register Branch.

1991 *National Register Bulletin 16A, How to Complete the National Register Registration Form*. Washington DC: National Register Branch.

Nelson, Lee H.

1982 *Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Heritage Preservation Services, National Park Service, Department of the Interior, Washington, DC.

Office of Historic Preservation

1995 "Instructions for Recording Historical Resources." Sacramento: State Office of Historic Preservation.

Sanborn Fire Insurance Company

Fire insurance maps of San Francisco (1886-1948).

San Francisco Call

Various articles (1898-1921).

San Francisco Chronicle

Various articles (1898-1921).

San Francisco Heritage

Heritage archives.

San Francisco Public Library

San Francisco History Room archives.

Starr, Kevin

2005 *California: A History*. New York: Modern Library.

UC Berkeley

Frederick H. Meyer Collection, (1976-1). Environmental Design Archives, University of California, Berkeley. Berkeley, California.

Whiffen, Marcus

1969 *American Architecture Since 1780*. Cambridge, MA: MIT Press.

SWCA ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.®

Part I Historic Resources Evaluation, 2340 Stockton Street, San Francisco, California

SWCA Environmental Consultants/Turnstone
330 Townsend Street, Suite 216, San Francisco, CA 94107

May 2016

This page intentionally left blank.

TABLE OF CONTENTS

FIGURES

EXECUTIVE SUMMARY

Project Background

This Historic Resource Evaluation (HRE) was prepared by SWCA Environmental Consultants/Turnstone (SWCA) at the request of the Academy of Art University (AAU) in conjunction with the San Francisco Planning Department. This HRE forms part of the Existing Sites Technical Memorandum (ESTM) currently being prepared by SWCA for AAU. Prepared separately as a broader study, the ESTM includes historic resource evaluations (Part 1 HREs) for 26 AAU-owned and operated properties. Among these 26 properties, a total of 22 are Category A properties in the City and County of San Francisco (i.e., known historical resources) and 4 are Category B properties (i.e., properties of age but unevaluated).

Per the guidance of the San Francisco Planning Department, SWCA evaluations of the four Category B properties have been documented in comprehensive HREs meeting the requirements of the San Francisco Planning Department. These four HREs include evaluations of: (1) 1727 Lombard Street (Star Motel); (2) 1916 Octavia Street; (3) 1069 Pine Street; (4) 2340 Stockton Street. This HRE presents the results of the evaluation of 2340 Stockton Street.

Properties that were found eligible as historical resources pursuant to San Francisco Planning Department policy and the California Environmental Quality Act (CEQA) have been carried forward for Part 2 HREs, for project-level analysis of compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (*Secretary's Standards*), as well as San Francisco Planning Department guidelines for historic properties (including for Article 10 Historic Districts and Article 11 Conservation Districts). Where past alterations to the properties were found in noncompliance with the *Secretary's Standards* and/or San Francisco Planning Code Article 10/Article 11 guidelines, recommendations for project modifications have been made, in order to facilitate compliance with the *Secretary's Standards* and San Francisco Planning Department policy. The analysis of alterations included the exterior of the properties, both on primary and secondary elevations, and interior spaces that were historically accessible by the public.

Project Team

The four extended HREs of Category B properties were compiled and prepared by architectural historian Shayne Watson and coauthored by Ms. Watson, Debi Howell-Ardila (SWCA Senior Architectural Historian) and Steven Treffers (SWCA Architectural Historian). Research assistance was provided by SWCA architectural historians Natalie Loukianoff and David Greenwood. Senior oversight and review were provided by Ms. Howell-Ardila and Dr. John Dietler, California Cultural Resources Program Director.

Findings

The commercial building at 2340 Stockton Street does not appear eligible for listing under designation criteria at the federal, state, or local level, either individually or as a part of a historic district.

INTRODUCTION

The subject property is located at 2340 Stockton Street on the west side of the block bounded by Stockton Street, Beach Street, Grant Avenue, and North Point Street. The building is located within the North Beach neighborhood. The Assessor's Parcel Number (APN) is 0018004. The lot size is 37,812 square feet. The building is located within a C-2 (Community Business) zoning district. Academy of Art University acquired the property in 1986.

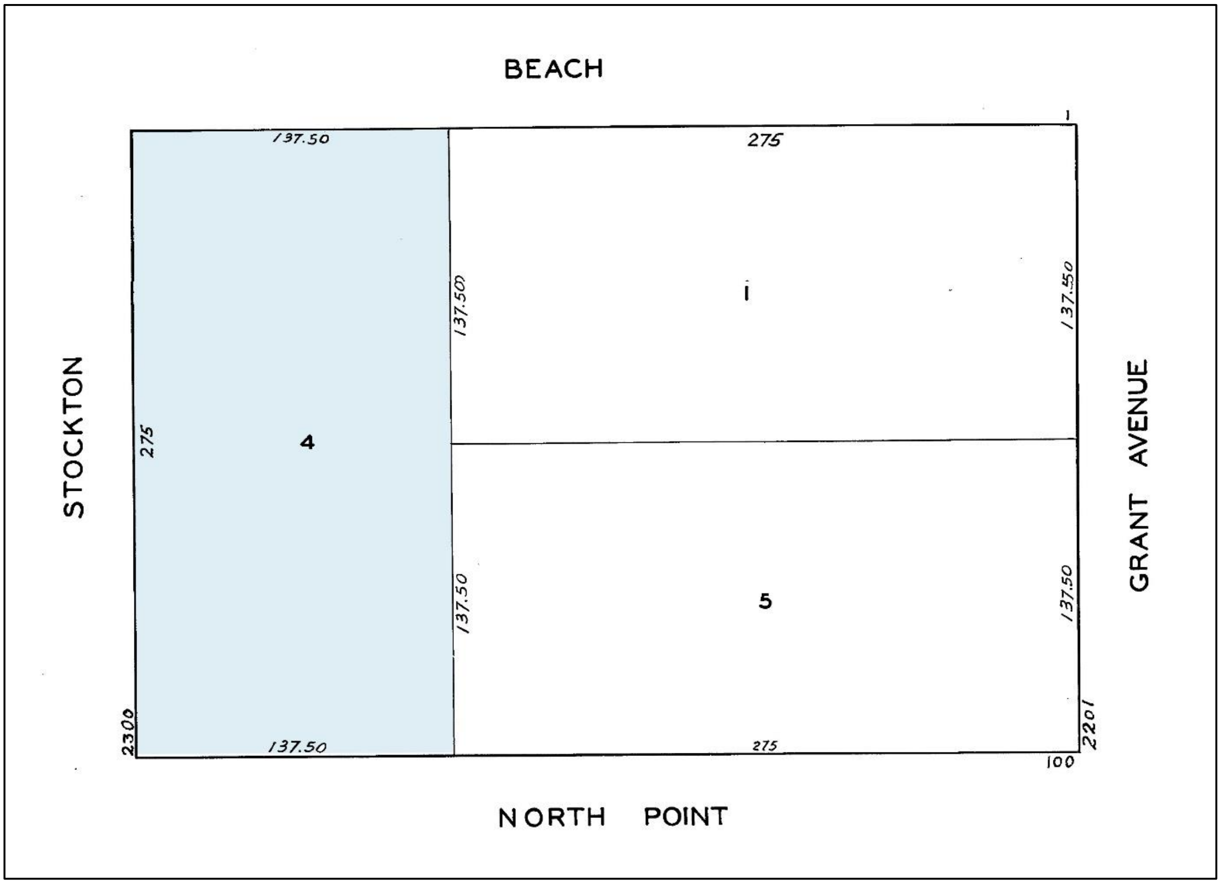


Figure 1. Project Location, Assessor's Parcel Map, City and County of San Francisco. The blue polygon marks the location of 2340 Stockton Street. Source: City and County of San Francisco, edited by author, 2016.

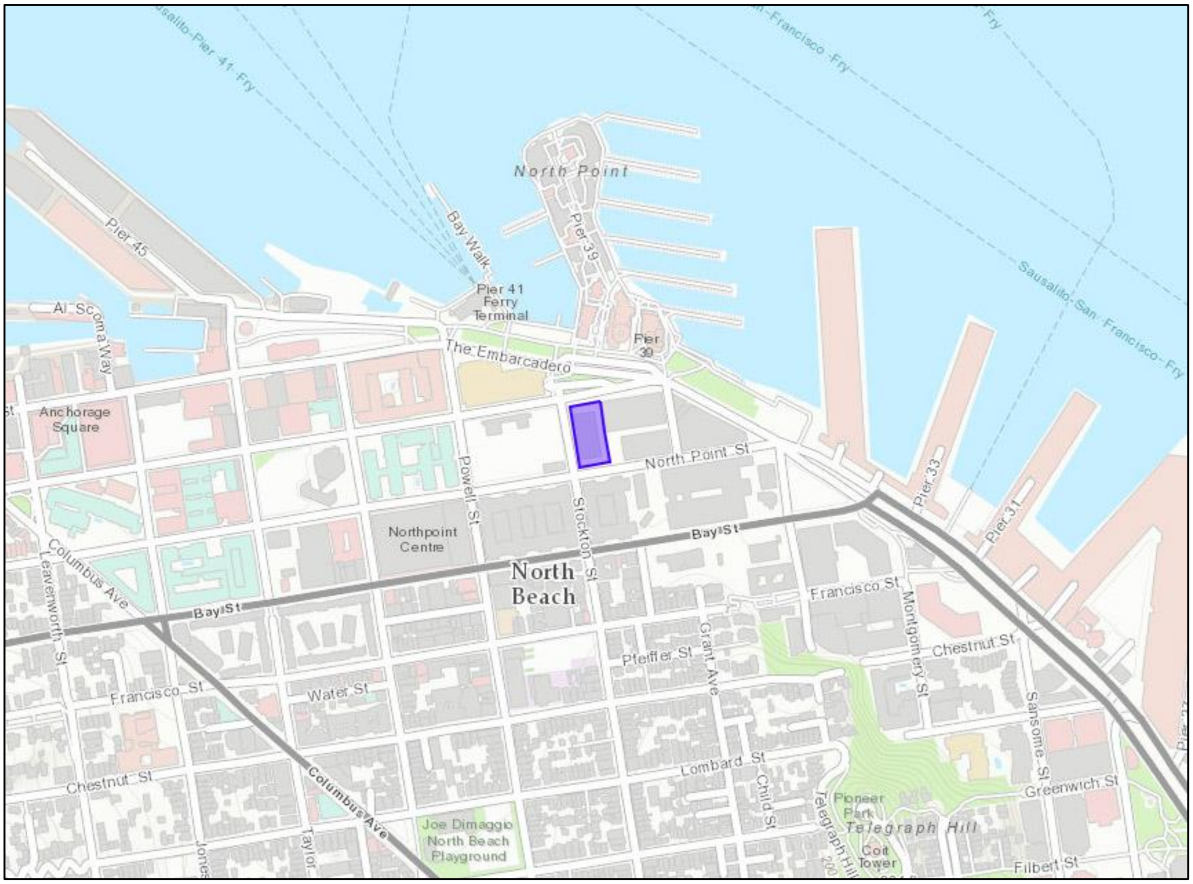


Figure 2. Project Vicinity. Blue polygon marks the location of 2340 Stockton Street, in Pacific Heights. Source: City and County of San Francisco Property Information Map, 2016.

Current Historic Status

The property is a “Category B” property, a property that is age-eligible but has not yet received a CEQA historical resource status. According to records on file with the San Francisco Planning Department, the property has not been previously surveyed.

Adjacent Historical Resources

The following describes known historical resources adjacent to 2340 Stockton Street or within a radius of one block.

Directly adjacent to the east, the neighboring property, the Otis Elevator Company building at 1 Beach Street, is listed in the National Register of Historic Places (NRHP). The building was designed by architect P.J. Walker and completed in 1924. Across the street, to the southeast, is the North Point Wet-Weather Facility at 66 Bay Street, determined to be a historic resource in 2009 (Planning application no. 2009.0475E). The facility was completed in 1951.

To the north of the subject property is the Port of San Francisco Embarcadero Historic District, listed in the NRHP (2006). The historic district is significant under criterion A in the areas of Government, Commerce, Transportation, and Labor. It is significant under criterion B for its association with Harry Bridges, a labor leader, and under criterion C in the area of Engineering, Architecture, and Community Planning and Development. There are 28 contributing buildings and 19 contributing structures.

These properties and historic district are listed in Table 1.

TABLE 1 ADJACENT HISTORICAL RESOURCES, 2340 STOCKTON STREET

Resource Name/Address	Construction Date	Criteria (CRHR/NRHP)	Current Historic Resources Status
Otis Elevator Company/1 Beach Street	1923	NRHP	Individually listed
North Point Wet-Weather Facility/66 Bay Street	1951	CRHR	Planning Department Historic Resource Status – Category A (Historic Resource Present)
Port of San Francisco Embarcadero Historic District	1878-1946 (POS)	NRHP	Historic district

ARCHITECTURAL DESCRIPTION

Exterior Architectural Description

General

The subject property is a rectangular parcel that faces Stockton Street but spans the full width of the block from Beach Street on the north to North Point Street on the south. The Otis Elevator Building is the only building or structure on the property; it is three stories in height, has a rectangular footprint, and occupies much of the lot. At the west (primary) façade, the building directly abuts the sidewalk on Stockton Street. At the north, south, and east facades, the building is setback from the lot line, and there are parking lots at the perimeter. Brick walls line the north, south, and east ends of the property. At the north and south walls, there are regular breaks fitted with wrought-iron or metal grills.

A flat roof tops the building. In the center, there is a mechanical penthouse, which also has a flat roof. The building's first floor is open and functions as a parking garage with the exception of an enclosed lobby section. The second and third floors house classrooms, labs/studios, offices, and student and faculty lounges. The structure of the building is reinforced concrete clad in cement plaster at the exterior. At the facades, horizontal concrete beams delineate the floor levels and roofline. Flat concrete piers span from the second floor to the roof dividing the facades into structural bays. These structural bays correspond to piers and beam ends visible in the parking garage. At the first floor, the piers are flush with the façade at the north and south sides of the building and set back at the west and east.

Vertical concrete mullions span from the second floor to the roof and further divide the structural bays: at the west and east facades, the structural bays are divided into five sections and at the north and south façades six sections. Each section is fully filled with either a window or panels of dark tile laid in stacked bond with dark grout. At the west and east facades, the first, third, and fifth sections are fitted with windows, and the second and fourth are tile. At the north and south facades, the first, third, fourth, and sixth sections are fitted with windows and the second and fifth are tile. The windows are all fixed aluminum, and muntins divide the lower quarter. The glazing is tinted. Because the window frames, glazing, tile, and grout are all dark and fill the entire sections between the mullions, a grid pattern is created. Many of the fixed windows have been modified by the insertion, at an unknown date, of small aluminum sliders above the original muntins.

"Academy of Art University" blade signs, installed in 1987, are mounted on all exterior corners of the building at the third floor (permit no. 8701534). A flat "Academy of Art University" sign is affixed to the west façade above the third floor windows. Overhead clearance bars were installed at the automobile entrances to the first floor parking garage in 2015.

The building exhibits both Brutalist and International-style influences.

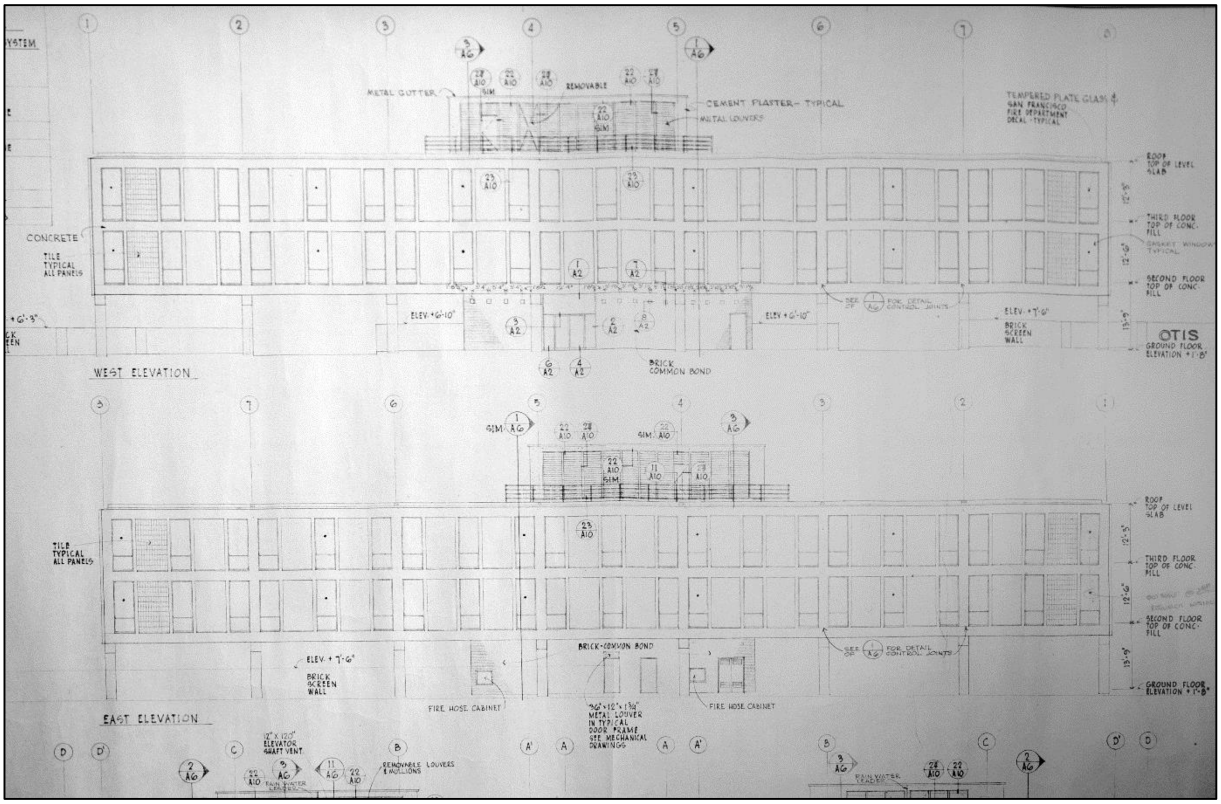


Figure 3. West and east elevation drawings for 2340 Stockton Street, 1969. Source: UC Berkeley CED Archives.

West (Primary) Facade

At the west façade, which faces Stockton Street, there are seven structural bays. Most of the first floor is an open parking garage, but at the center of the building's west end, there is an enclosed portion that houses the lobby and ancillary spaces and equipment. The enclosure's exterior walls are brick laid in common bond. Although originally tan brick, the walls have since been painted (see historic photograph, c. late 1970s/early 1980s). The primary entrance to the building is located in the enclosure's west wall and is composed of a pair of aluminum glazed doors with sidelights and transom. The second and third floors are consistent with the fenestration pattern and materials of the other facades as described in the General section.

Figure 4. West façade, 2340 Stockton Street. Source: SWCA, 2015.

Figure 5. West façade, entrance detail, 2340 Stockton Street. Source: SWCA, 2015.

East Facade

The east (rear) façade is very similar in appearance to the west (primary) façade and is divided into seven structural bays. Metal vents have been inserted in some of the windows at an unknown date. This facade is otherwise consistent with the fenestration pattern and materials of the other facades as described in the General section.

Figure 6. East façade, 2340 Stockton Street. Source: SWCA, 2015.

North and South Facades

The north and south facades, which face Beach and North Point Streets respectively, have three structural bays. These facades are otherwise consistent with the fenestration pattern and materials as described in the General section.

Figure 7. South façade, 2340 Stockton Street. Source: SWCA, 2015.

Interior Architectural Description

The interior of the Otis Elevator Building is largely characteristic of an office building dating to the early 1970s and does not appear to be extensively altered. The small lobby at the first floor features painted brick walls laid in common bond and original imprinted concrete floors. Alterations include new track lighting, televisions on the northern wall, and a sliding barn-style door on the southern wall. The surrounding parking garage is largely open. In the garage, the concrete piers and beams of the building's structural system are visible. At the ceiling, precast concrete coffers fill the spaces between the beams.

The upper floors feature long linear hallways running the length of the building, with offices and classrooms on either side. Alterations include the partial removal of linoleum flooring, the replacement of some doors, and the installation of track lighting.

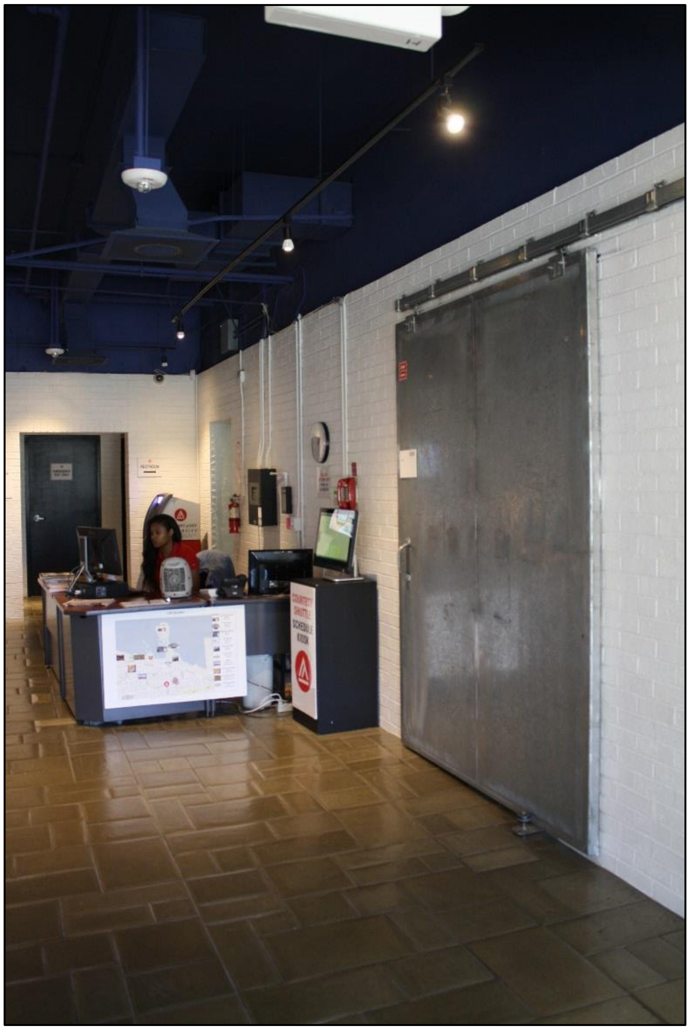


Figure 8. Lobby, 2340 Stockton Street. Source: SWCA, 2015.

SITE HISTORY

The subject property is a three-story commercial building constructed in 1970 as the administrative offices for the Otis Elevator Company, originally established in New York in 1854. As early as 1904, the Otis Elevator Company had opened offices in San Francisco, at 509 and 511 Howard Street.[1] In 1924, the Otis Elevator Company completed a factory and assembly plant immediately east of the subject property, at 1 Beach Street. By 1969, in a reflection of the company's continuing expansion, Otis Elevator Company hired the renowned architecture firm of Wurster, Bernardi, and Emmons to design a signature office building next to its factory. The Otis Elevator Company occupied the building, along with other various, mostly short-term tenants, through 1985. Academy of Art University acquired the property in 1986.

The following are known alterations to the building at 2340 Stockton Street:

- Installation of blade signs, 1987 (permit no. 8701534);
- Removal of lower floor wall to have street access to deli, 1992 (permit no. 9204265);
- Removal of lower floor wall to have street access, 1995 (permit no. 9519178);
- Modification of many of the fixed windows by the insertion of small aluminum sliders above the original muntins (unknown date);
- Painting of tan brick walls at ground floor of west façade, c. post-1980s (see historic photograph, c. late 1970s/early 1980s);
- Installation of clearance bars at parking entrances, date unknown (no permit);
- Installation of fire alarm and sprinkler system (permit no. 211204037467);
- Installation of a sliding barn-style door on the southern wall of the lobby, date unknown (no permit); and
- Partial replacement of doors at upper floors of the interior, date unknown (no permit).

The following Sanborn Fire Insurance Compay maps and historic images present a visual overview of the property's construction chronology. Following the figures, Table 2 lists all permitted alterations to the subject property.

[1] Pacific Art Company. *San Francisco: Her Great Manufacturing, Commercial and Financial Institutions are famed the World Over* (Pacific Art Company, San Francisco, 1904-1905), 120.

Figure 9. Historic photograph, 2340 Stockton Street, c. late 1970s or early 1980s. Source: KMELforever.com.

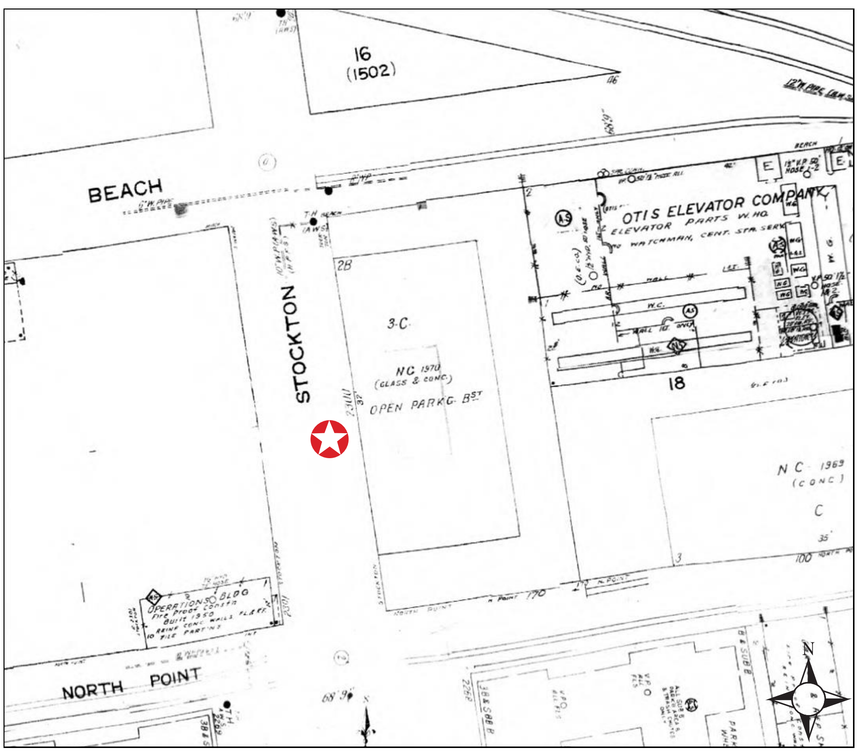


Figure 10. 1974 Sanborn Fire Insurance Map, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

Figure 11. 1974 aerial photograph, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

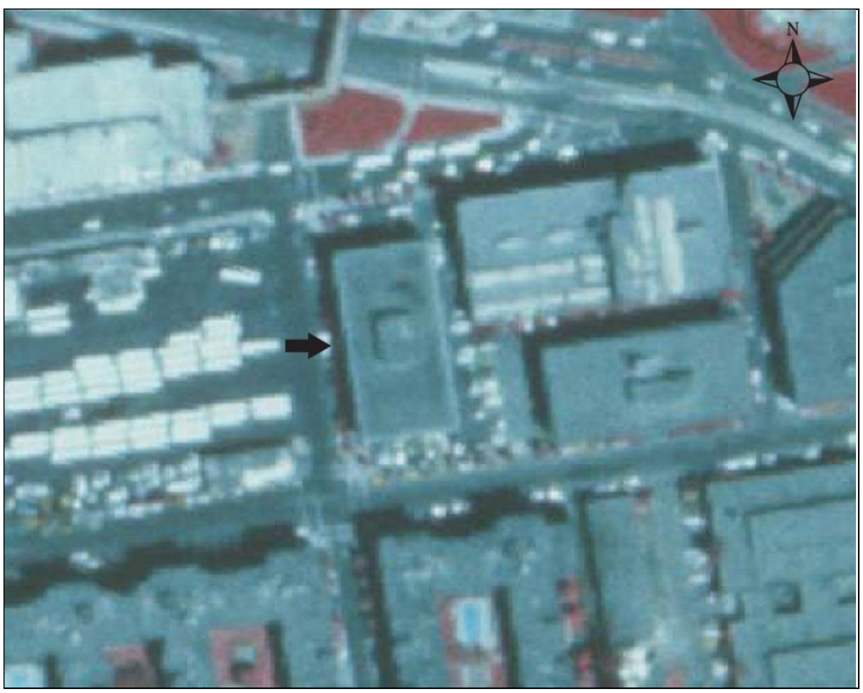


Figure 12. 1982 aerial photograph, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

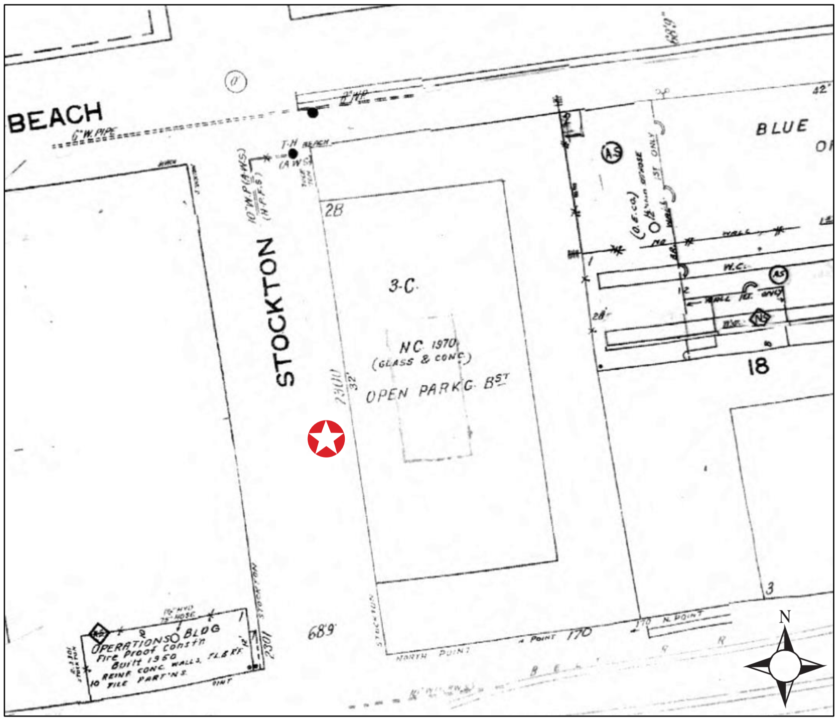


Figure 13. 1986 Sanborn Fire Insurance Map, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

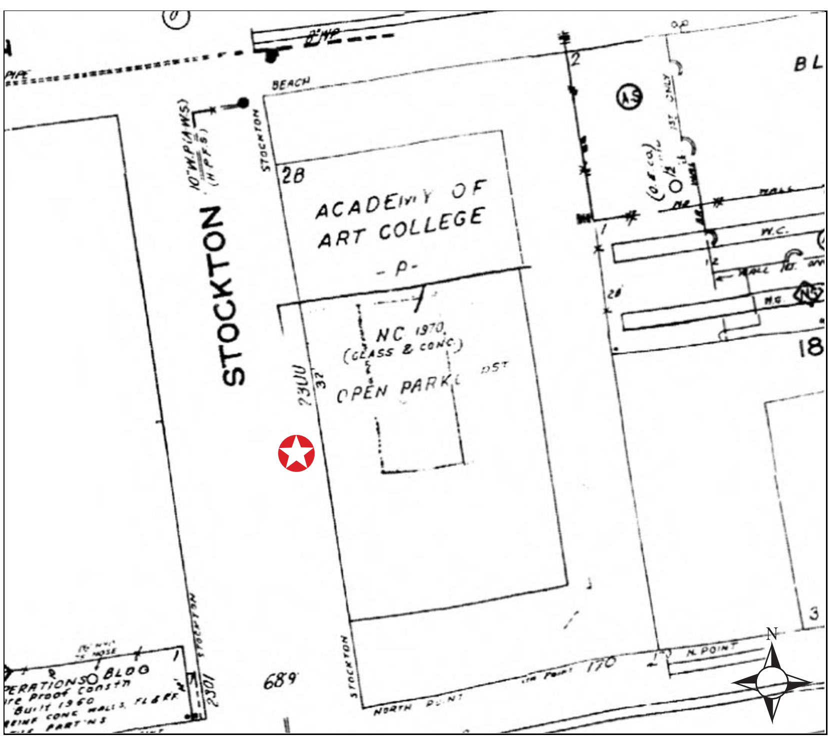


Figure 14. 1990 Sanborn Fire Insurance Map, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

Figure 15. 1993 aerial photograph, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

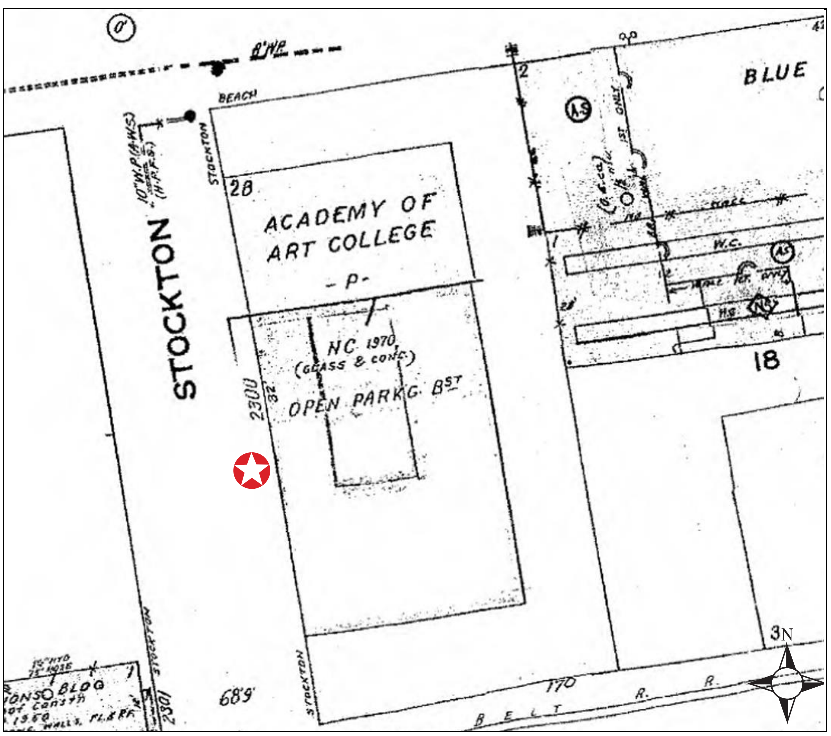


Figure 16. 1999 Sanborn Fire Insurance Map, 2340 Stockton Street. Source: Environmental Data Resources, 2015.

TABLE 2 BUILDING PERMITS, 2340 STOCKTON STREET

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Feb. 6, 1969 (Jun. 12, 1969)	Application #366518 (35161) (333000)	Otis Elevator Company	Donn Emmons (Wurster, Bernardi and Emmons, Inc.)	$1,376,000	Original building permit to construct a three-story office building with a height of 40 ft., F-2 occupancy, with approx. 20,000 ft. ground floor area.
Feb. 15, 1983	S.F. Property Info Permit: 8301294			$37,500	3 – Alterations with plans. (no description)
July 1, 1983	S.F. Property Info Permit: 8306066			$1,000	3 – Alterations with plans. (no description)
Feb. 5, 1987	S.F. Property Info Permit: 8701534			$2,800	Erect sign.
Apr. 16, 1992	Application #9204265 (695826)	Stephen Family Trust		$15,000	Remove lower floor wall to have street access to deli.
Nov. 10, 1995	S.F. Property Info Permit: 9519178			$8,000	Ref #9204265-Remove lower floor wall to have street access.
Nov. 16, 2011	S.F. Property Info Permit: 201111169042			$45,000	Accessibility upgrades & minor modification to egress system.
May 23, 2012	Application #2012.04.03-7467 (1265365)	AAU		$80,000	Installation of new Fire Alarm system. Sprinkler monitoring; elevator recall.
July 10, 2012	Application #2012.05.03-9687 (1269009)	AAU		$267,776	Install a new fire sprinkler system (interior).

DATE	PERMIT NUMBER	OWNER	ARCHITECT	COST	DESCRIPTION
Nov. 13, 2012	S.F. Property Info Permit: 201211134025			$50,000	This permit is for change of use from office to post-secondary education institution.
June 10, 2013	S.F. Property Info Permit: 201306109030			$500	Legalize one (non-electric) painted wall sign.

FOCUSED NEIGHBORHOOD CONTEXT

North Beach

In their book, *San Francisco, 1865-1932: Politics, Power, and Urban Development* (1986), historians William Issel and Robert Cherny identify seven distinct neighborhoods that existed or were developed in San Francisco from the mid-nineteenth century to World War I: South of Market, Mission District, Western Addition, Nob Hill-Pacific Heights, Chinatown, Downtown, and North Beach. Each neighborhood was distinct in terms of demographics and character.

Originally called the Latin Quarter, North Beach was clustered around the intersection of Montgomery (later Columbus) Avenue and Broadway, but also included Telegraph Hill. First settled by French, Italian, South American, Spanish, and Portuguese residents, the neighborhood became known as Little Italy by the turn of the 20th century. Two-thirds of the population was working-class men, half of whom were Italian born.[2] In the middle-to-late nineteenth century, North Beach's waterfront became dominated by industrial uses—especially lumber, as this part of North Beach was the main receiving center for lumber shipments from the Northern California coast. The Filbert Street wharf, called Italy Harbor, was headquarters for the city's fishing industry until 1900 when Fisherman's Wharf was built near the foot of Columbus Avenue.[3] By the turn of the twentieth century, "San Francisco's fishing industry was among the busiest on the continent, processing more fish than all the combined ports from Washington State to Mexico."[4]

After the 1906 earthquake and fires, some parts of San Francisco were decimated, while others remained intact. Downtown, South of Market, Chinatown, and most of North Beach were destroyed and rebuilt relatively quickly atop the previous street grid, platted in 1847.[5] North Beach's waterfront continued to be a driver of San Francisco's economy through the first third of the 20th century, with a massive network of shipping piers, warehouses, markets, and centers for distribution, production, and processing. During World War II, manufacturing jobs peaked when the Bay Area became a center for defense production, but soon after the war San Francisco slowly deindustrialized as waterfront and heavy industrial jobs moved to the East Bay, and San Francisco's economy became focused on service-based industries, notably finance and tourism. Financial jobs nearly doubled in the 1950s while employment on the waterfront was reduced 25 percent; the advent of containerization of water-borne commerce in the 1960s spelled the death of the San Francisco waterfront as a site for loading and unloading ships.[6]

North Beach's waterfront began to transform into one of the city's main tourist attractions beginning in the 1930s when restaurants moved to Fisherman's Wharf to take advantage of fresh seafood and views of the San Francisco Bay. "By the 1950s—the same time that many west coast fisheries began to decline in earnest—many fishing operations at [Fisherman's] Wharf likewise became increasingly focused on the steadier and more lucrative opportunities offered by the restaurant and tourist trade."[7] The North Beach

---

[2] William Issel and Robert Cherny, *San Francisco, 1865-1932: Politics, Power, and Urban Development,* San Francisco, Berkeley: University of California Press, *73*-75.

[3] Ibid., 74.

[4] San Francisco Planning Department, "Fisherman's Wharf Public Realm Plan Project," April 20, 2011, http://sfmea.sfplanning.org/2010.0256E_FMND.pdf (accessed January 18, 2016).

[5] Kevin Starr, *California: A History* (New York: Modern Library, 2005), 176.

[6] Chris Carlsson, "The Progress Club: 1934 and Class Memory," James Brook, Chris Carlsson & Nancy J. Peters, eds., *Reclaiming San Francisco: History, Politics, Culture: A City Lights Anthology* (San Francisco, Calif: City Lights Books, 1998), 76.

[7] San Francisco Planning Department.

waterfront turned almost completely to tourism in the late 1970s when industrial fishing nearly ceased and when Pier 39 was developed into a tourist district in the late 1970s.

2300 Block of Stockton Street

In 1887, the 2300 block of Stockton Street and most surrounding blocks were vacant. Across the street to the north, on the Embarcadero, were lumber yards and a grain elevator, signs of the area's early industrial history. By 1899, the North Beach waterfront had become a bustling hub for the lumber industry. The entire east side of the 2300 block of Stockton Street where 2340 Stockton (the subject property) sits today was a storage and distribution center for the D.H. Bibb Lumber Company. There were 15 lumber-storage sheds, an office, and a warehouse for furniture storage. A railroad spur running from the Embarcadero cut diagonally through the block to the southwest. Across Stockton Street, to the west, was the D.H. Bibb Lumber Company furniture factory and the H. Engelbrecht San Francisco Launch Company, a boatbuilder. To the north, on the Embarcadero, was grain distribution center.

After the 1906 earthquake and fires destroyed North Beach, the area was rebuilt and once again dedicated to industrial uses. The subject property contained the Otis Elevator Company factory, with a machine shop, offices, planing mill, and storage. The west side of the 2300 block of Stockton Street was vacant, except for the westernmost half, which housed lumber storage yards and a planing mill for the W.C. Premus Company.

The Otis Elevator Company factory was rebuilt and reconfigured in 1924. Rather than face Stockton Street, which it had in 1913, the factory was located at the northeast corner of the lot and faced Beach Street. A railroad spur led into the Grant Avenue side of the building. By 1948, the southeast side of the block contained the Stauffer Chemical Company, a sulpher manufacturer. The west side of the 2300 block of Stockton was vacant except for some remaining lumber storage. To the north, across the Embarcadero, Piers 39 and 41 had been constructed. Bewteen 1948 and 1950, the only change to the block was the construction of the San Francisco Municipal Railway (Muni) Kirkland Bus Yard at the west side of Stockton.

By 1974, the 2300 block of Stockton had transformed into its current configuration. The Otis Elevator Company offices had been constructed at 2340 Stockton Street. At the southeast corner of the block, where the Stauffer Chemical Company building once stood, a new building was constructed in 1969. The west side of the 2300 block of Stockton remained unchanged since 1950 and continued to house a Muni bus yard.

OWNER/OCCUPANT HISTORY

The building at 2340 Stockton Street, originally known as the Otis Building, housed the offices of the Otis Elevator Company on the second floor from 1970 through 1985. From at least 1973 through 1977, the third floor was headquarters of Refectory International Inc., a restaurant services company, and the General Adjustement Bureau, an insurance claim adjuster (the building does not appear in the 1970-1972 city directories). Other tenants in the building for at least five years were the California Youth Authority state office (1975-1982) and Century Broadcasting Company, KMEL radio station (1977-1985).

Tenants located in the building at 2340 Stockton Street for at least five years are described below.

Otis Elevator Company

The Otis Elevator Company is described in architectural historian Anne Bloomfield's NRHP nomination for the Otis Elevator Company Building at 1 Beach Street in San Francisco:

> The Otis Elevator Company was founded by Elisha Graves Otis, who invented the first safety hoist in 1852. He built freight elevators in 1853, demonstrated his invention at New York's Crystal Palace Exposition in 1854, and installed the first passenger elevator in 1855. After his death in 1861, Otis's sons Charles and Norton took over the business and attained sales of one million dollars by 1870. From the beginning Otis has dominated the elevator field nationally, both in quantity and in technological improvements. In1898 it merged with 14 other elevator companies, and the purchase of competitors continued. While the main plant was located in Yonkers, New York, by 1924 Otis advertised offices in "all principal cities," over 100 of them.
>
> In San Francisco Otis established an agency in the early 1880s, and by the turn of the 20th century the company maintained its own office in the city. After the 1906 earthquake and fire, the Otis office was at Stockton and Beach Streets. The subject building, No. 1 Beach Street, was built in 1923-1924, to designs by the company's architectural office in Yonkers. The building was used for elevator assembly and the manufacture of the selector mechanism of Otis's Signal Control System for elevators. A railroad spur led into the Grant Avenue side of the building. With smaller buildings of similar design in Los Angeles and Portland, the San Francisco office serviced the entire U.S. west coast plus Nevada and Arizona, Alaska and Hawaii. During the depression of the 1930s, when construction activity ground to a halt and the company finally realized the importance of service/maintenance contracts, the San Francisco office was made exclusively a service and maintenance facility. Otis remained in the building into 1969.[8]

After moving out of its headquarters at 1 Beach Street in 1969, Otis Elevator Company moved to the new Otis Building at 2340 Stockton Street, commissioned by the company in the late 1960s. Otis stayed at 2340 Stockton Street from 1970 to 1985.

California Youth Authority

The California Youth Authority was a division of the California Department of Corrections and Rehabilitation and occupied offices at 2340 Stockton Street from 1975 through at least 1982. The state agency provided education, training, and treatment services for California youth, ages 12-25, who had been committed to state correctional facilities or drug-treatment programs. The California Youth Authority eventually became the California Division of Juvenile Justice. The agency’s use of the building at 2340 Stockston Street is unknown. The agency’s headquarters are in Sacramento, California.

Century Broadcasting Company (KMEL)

KMEL (106.1) began in 1946 as the sister station of KGO-AM. The following year, KGO-FM moved to 106.1, with broadcast facilities in Oakland. Century Broadcasting purchased the station in 1977 and the broadcasting facilities moved to the Otis Building at 2340 Stockton Street. KMEL played “album-oriented rock” through 1984, when the station switched to the “Top-40” genre. KMEL broadcast from 2340 Stockton Street through c. 1985.

Table 3 presents data available in city of San Francisco directories for all known owners and occupants of the property.

[8] Anne Bloomfield, National Register of Historic Places Nomination, Otis Elevator Company Building, February 3, 1999.

TABLE 3 OWNER/OCCUPANT HISTORY

2300-2380 Stockton Street		
Date	Name	Source
1970-1972	No city directory listing for Otis Elevator Company or the 2300 block of Stockton Street	Polk's San Francisco City Directory
1973-1974	Otis Building: • 2nd floor: Otis Elevator Company • 3rd floor: Refectory International Inc., General Adjustment Bureau	Polk's San Francisco City Directory
1975	Otis Building: • 2nd floor: Otis Elevator Company • 3rd floor: Refectory International Inc., General Adjustment Bureau, • Suites: Decimus Corporation (computers), National Distillers Products Company, California Youth Authority state office	Polk's San Francisco City Directory
1976	Otis Building: • 2nd floor: Otis Elevator Company • 3rd floor: Refectory International Inc., General Adjustment Bureau • Suites: Decimus Corporation (computers), National Distillers Products Company, Holland House Brands Company, Muson Shaw Company	Polk's San Francisco City Directory

	(liquor imports), California Youth Authority state office	
1977	Otis Building: • 2nd floor: Otis Elevator Company • 3rd floor: Refectory International Inc., General Adjustment Bureau • Suites: Century Broadcasting Corporation (KMEL Radio Station), Munson Shaw Company, Refectory International Inc., National Distillers Products Company, California Youth Authority	Polk's San Francisco City
1978	Otis Building: • 2nd floor: Otis Elevator Company • Suites: G.A.B. Business Services Inc., Century Broadcasting Corporation (KMEL Radio Station), National Distillers Products Company, California Youth Authority	Polk's San Francisco City
1980	Otis Building: • 2nd floor: Otis Elevator Company • Suites: G.A.B. Business Services Inc., Century Broadcasting Corporation (KMEL Radio Station), California Youth Authority	Polk's San Francisco City
1981	Otis Building: • 2nd floor: Otis Elevator Company	Polk's San Francisco City

	• Suites: G.A.B. Business Services Inc., Century Broadcasting Corporation (KMEL Radio Station), California Youth Authority, Media Express (advertising), Metropolitan Outdoor (advertising)	
1982	Otis Building: • 2nd floor: Otis Elevator Company • Suites: G.A.B. Business Services Inc., Century Broadcasting Corporation (KMEL Radio Station), California Youth Authority, Media Express (advertising), Metropolitan Outdoor (advertising), J.B. Hevia & Company (travel advertising)	Polk's San Francisco City
1985	Otis Building: • 2nd floor: Otis Elevator Company • Suites: G.A.B. Business Services Inc., Century Broadcasting Corporation (KMEL Radio Station), Travel Creators Commercial, Travel Systems, Volunteers in Parole	Pacific Bell
1990	California Parking Company; Volunteers in Parole	Pacific Bell
1993	Academy of Art University; Classic Parking Inc.	Pacific Bell

ARCHITECT

Wurster, Bernardi, and Emmons

The primary architect for 2340 Stockton Street was Donn Emmons of the noted San Francisco architecture firm Wurster, Bernardi, and Emmons. Donn Emmons was born in New York in 1910 and studied architecture at Cornell University and the University of Southern California. He began his career in Los Angeles, working for various firms before moving permanently to the San Francisco Bay Area in 1938.[9]

In 1938, Emmons joined the firm of Wurster, Bernardi and Emmons, one of San Francisco's most celebrated and prolific Modernist firms. The firm was founded in 1926 by William Wilson Wurster, educator, practitioner, and "anointed leader" of the regional modernist idiom known as the Second Bay Tradition.[10] Joining Wurster to form WBE in 1944 and 1945, respectively, were Theodore Bernardi and Donn Emmons. Together the three were responsible for the design of dozens of influential commissions in San Francisco and beyond.[11] Out of the three partners, Emmons "was principally responsible for many of their most important commissions."[12]

In 1963, Donn Emmons was selected by Bay Area Rapid Transit (BART) to be the chief design architect for the new BART system. He was chosen out of 20 architects.[13] However, according to Allan Temko,

> Emmons found himself embroiled in controversy when BART's engineers failed to accept his recommendations for careful planning and design. In particular, the engineers refused to recognize the system's impact on surrounding communities. Accompanied by landscape consultant Lawrence Halprin, Mr. Emmons resigned two years later, enlisting wide public support for his position. His designs for the heroic piers of BART's elevated structures were later honored with awards by the American Institute of Architects.[14]

Emmons designed the Mill Valley Public Library in 1969, "arguably [his] finest accomplishment," according to architectural critic Allan Temko.[15] The project garnered him an AIA Gold Medal in 19XX. Emmons' other awards and honors include Fellowship in the AIA (1954); the AIA Albert John Evers Environmental Award (1984); and San Francisco Arts Commission Award for "distinguished work and achievement in architecture" (1986). Emmons was an advisor to the State Department's Office of Foreign Buildings, the entity responsible for embassy construction around the world.[16] As a firm, Wurster, Bernardi and Emmons received more than 100 design awards.

Donn Emmons retired from active practice in 1985 and died in Sausalito in 1997.

---

[9] Allan Temko, "Obituary – Donn Emmons," *San Francisco Chronicle*, September 3, 1997.

[10] Mary Brown, *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. Document prepared for the 2009/2010 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department (2011), 86.

[11] Michelson, Alan R. "Bernardi, Emmons—and Wurster: Focus on the Younger Partners." Trieb, Marc, ed., *An Everyday Modernism: The Houses of William Wurster* (Berkeley, CA: UC Berkeley Press, 1995); Brown, 268.

[12] Temko.

[13] Elmont White, "Transit Picks Emmons as its Chief Architect," *San Francisco Chronicle*, September 17, 1963.

[14] Temko.

[15] Ibid.

[16] Temko.

During his tenure at WBE, some of the firm's most notable projects in San Francisco include:

- Commercial and residential buildings for the Golden Gateway redevelopment project (1959-1967);
- Bank of America at 275 Ellis, cited in historic preservation planner Mary Brown's *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* (2010) as the "first Modern Bank of America design in San Francisco" in 1963…stylistically linked to the New Formalist freestanding Modern pavilions designed by Philip Johnson and Minoru Yamasaki;[17]
- Rehabilitation of Ghirardelli Square (San Francisco Lanmark No. 30), with landscape architect Lawrence Halprin (1965-1968); and
- Bank of America world headquarters at 555 California Street, with architects Skidmore, Owings and Merrill and Pietro Belluschi, and landscape architect Lawrence Halprin (1967-1971).

The Golden Gateway project is described in preservation planner Mary Brown's *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* (2010):

> Located alongside the financial district and the waterfront, the Golden Gateway project added approximately 2.8 million square feet of office space to downtown San Francisco. An advisory panel including Mario Ciampi, Louis Kahn, and Minoru Yamasaki judged the 1959 site design competition. The panel favored designs with a degree of "monumentality" befitting the adjacent downtown area's importance as a financial center. The selected design, by Wurster, Bernardi and Emmons and DeMars and Reay, placed residential and office towers among parks and plazas. The result was "something strikingly new for San Francisco, a modernist essay in the spirit of the International Style."
>
> The first two phases of residential development were designed by architects Wurster, Bernardi & Emmons, DeMars & Reay, and Anshen & Allen. In addition to four towers, landscaped plazas and townhouses were constructed over two- story garage blocks, with elevated footbridges connecting the plazas. Phase I began in 1962 and was completed in 1965. It consisted of three towers and 38 townhouses occupying two city blocks. The towers include the 22-story slab Richard Henry Dana House and two 25-story towers named the Buckelew House and Macondray House. Phase II, built between 1964 and 1967, included another 22- story slab, the William Heath Davis House, and 20 additional townhouses. A third phase, Golden Gateway Commons, was built after 1970. The residential blocks surround Sidney G.Walton Square, a ground-level park designed by Sasaki/ Walker and Associates.
>
> The project also included an office tower, the Alcoa Building, known today as One Maritime Plaza. Designed by Skidmore Owings & Merrill (1964- 1967), it was unique in using structural seismic X- bracing as part of the building's aesthetic. Wurster, Bernardi & Emmons designed the garage. Sasaki, Walker Associates were the landscape architects for Maritime Plaza, which flanks the building to its west and east. The plaza is raised two stories above the street, with a parking garage beneath.[18]

[17] Brown, 135.

[18] Brown, 46-48.

BUILDER

The contractor/builder for 2340 Stockton Street is unknown. The builder name is not listed on the original building permit, nor on original drawing set.

CALIFORNIA REGISTER SIGNIFICANCE EVALUATION

The CRHR is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.
>
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
>
> Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

In addition to meeting the applicable eligibility criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

1. Location – the place where the historic property was constructed or the place where the historic event occurred;
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting – the physical environment of a historic property;
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time;
7. Association – the direct link between an important historic event or person and a historic property.

Resources eligible for the NRHP, under the corresponding Criteria A, B, C, and D, are automatically listed in the CRHR.

Evaluation, Criterion 1

The building at 2340 Stockton Street does not appear to be eligible for listing in the CRHR under Criterion 1 for an association with significant patterns of events, including early architectural or post-earthquake development in North Beach, either as a contributor to a potential district or individually.

Evaluation, Criterion 2

Regarding an association with Otis Elevator Company, the building at 2340 Stockton Street was constructed for the Otis Elevator Company in 1970, and the company remained there until 1985. Otis Elevator Company was founded in Yonkers, New York in the middle of the nineteenth century. The company's San Francisco office opened by the turn of the twentieth century, and after the 1906 earthquake moved to Stockton and Beach Streets (on the subject property). That building was demolished, and a new factory and office building was constructed at 1 Beach Street in 1924. By that time, Otis Elevator Company had offices in over 100 cities throughout the United States.

The building at 2340 Stockton Street was neither the first building associated with the company, nor the first building in San Francisco associated with the company. The Otis Elevator Company at 1 Beach Street is listed in the NRHP for an association with the company. Furthermore, the building at 2340 Stockton Street does not appear to retain any direction associations with significant individuals. Therefore, the building at 2340 Stockton Street does not appear to possess the significance required for CRHR eligibility under Criterion 2.

Regarding associations with other owners and tenants of 2340 Stockton Street, including the radio station KMEL and the California Youth Authority, the building appears ineligible for listing in the CRHR under Criterion 2. Research did not reveal that any of the owners or occupants have made any significant contributions to local, state, or national history.

Evaluation, Criterion 3

The commercial building at 2340 Stockton Street was designed by the notable Modernist firm Wurster, Bernardi, and Emmons. In considering the significance of the subject property, it is one of many Brutalist- and International-style commercial buildings designed by Wurster, Bernardi, and Emmons, as well as one of many Modernist commercial buildings constructed in San Francisco from the 1930s to 1970s. It exhibits many of the character-defining features associated with Brutalism and the International style, including poured-concrete construction, recessed windows that read as voids, repeating geometric patterns, strong right angles and simple cubic forms, and rectangular block-like shapes.

According to *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*, a Brutalist building would need to be designed in a high-style interpretation of the style in order to meet local and state registration requirements for their architectural merit under Criterion 3.[19] Further, because the subject property is less than 50 years old, it would need to be of "exceptional importance" to be eligible for listing in the NRHP. Although the subject property was designed by a notable Modernist firm and exhibits many of the character-defining features of the Brutalist style, it is not a distinctive or outstanding example of the property type. It is not a high-style interpretation of the style, as is required by the evaluation criteria identified in *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* and does not appear eligible for local, state, or federal designation under Criteria C/3. The *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement* provides multiple examples that are more representative of high-style Brutalist-influenced commercial architecture in San Francisco including: Transamerica Pyramid; Fox Plaza; Davies Medical Center; and the San Francisco State University Cesar Chavez Student Center; and an addition to the San Francisco Art Institute. Likewise, the historic context statement lists high-style examples of International-inspired commercial buildings that are more representative of the style than 2340 Stockton Street including: Crown-Zellerbach Building; Alcoa Building; Bethlehem Steel Building; John Hancock Building; and the Embarcadero Center.

[19] City and County of San Francisco Planning Department, p. 203.

BIBLIOGRAPHY OF WORKS CITED AND ARCHIVES CONSULTED

Ancestry.com.

Census data and city directories (1870-1940).

Bloomfield, Anne

1999. National Register of Historic Places Nomination, Otis Elevator Company Building.

Brown, Mary

2011. City and County of San Francisco Planning Department. *San Francisco Modern Architecture and Landscape Design 1935-1970 Historic Context Statement*. Document prepared for the 2009/2010 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation.

Carlsson, Chris

1998. "The Progress Club: 1934 and Class Memory," in James Brook, Chris Carlsson & Nancy J. Peters, eds., *Reclaiming San Francisco: History, Politics, Culture: A City Lights Anthology*. San Francisco: City Lights Books.

City Directory Company

Various San Francisco City Directories. Available at the San Francisco Public Library.

City and County of San Francisco, Department of Building Inspection

Building permits (1924-2010).

City and County of San Francisco Planning Department

2013 *[DRAFT] Neighborhood Commercial Buildings Historic Context Statement: 1865-1965*. Draft Document prepared for the 2012/2013 CLG grant through the National Park Service, Department of the Interior, through the California Office for Historic Preservation. San Francisco Planning Department.

Environmental Data Resources

Historic aerials.

Harris, Cyril M.

1998 *American Architecture: An Illustrated Encyclopedia*. New York: WW Norton.

Issel, William and Robert Cherny

1986 *San Francisco, 1865-1932: Politics, Power, and Urban Development*. Berkeley, Calif.: University of California Press.

KMEL Forever

2016 "Interview: Sonny Joe Fox," KMELForever.com, http://www.kmelforever.com/sonny-joe-fox1.html.

McAlester, Virginia and Lee

1984 *A Field Guide to American Houses*. New York: Alfred A. Knopf.

Michelson, Alan

1995. "Bernardi, Emmons—and Wurster: Focus on the Younger Partners." Trieb, Marc, ed. *An Everyday Modernism: The Houses of William Wurster*. Berkeley, CA: UC Berkeley Press.

National Park Service, Department of the Interior.

1990 *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*. Washington DC: National Register Branch.

1991 *National Register Bulletin 16A, How to Complete the National Register Registration Form*. Washington DC: National Register Branch.

Nelson, Lee H.

1982 *Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Heritage Preservation Services, National Park Service, Department of the Interior, Washington, DC.

Office of Historic Preservation

1995 "Instructions for Recording Historical Resources." Sacramento: State Office of Historic Preservation.

Pacific Art Company

1905. *San Francisco: Her Great Manufacturing, Commercial and Financial Institutions are famed the World Over*. Pacific Art Company, San Francisco.

Sanborn Fire Insurance Company

Fire insurance maps of San Francisco (1886-1948).

San Francisco Heritage

Heritage archives.

San Francisco Planning Department

2011. "Fisherman's Wharf Public Realm Plan Project," April 20, 2011, http://sfmea.sfplanning.org/2010.0256E_FMND.pdf.

San Francisco Public Library

San Francisco History Room archives.

Starr, Kevin

2005 *California: A History*. New York: Modern Library.

UC Berkeley

Wurster, Bernardi, and Emmons Collection, (1976-2). Environmental Design Archives, University of California, Berkeley. Berkeley, California.

Whiffen, Marcus

1969 *American Architecture Since 1780*. Cambridge, MA: MIT Press.

APPENDIX TR:

Transportation

Appendices

Appendix TR-A: Shuttle Bus Policy

6/17/14, Revised 11/7/14

Shuttle Bus Service Policy

AAU provides two types of shuttle bus services: fixed-route and on-demand. Fixed-route shuttle buses transport students and staff among Academy of Art academic buildings and residence halls free of charge during building hours: before and after classes, workshops, lab hours, meals and studio times. Access to AAU fixed-route shuttle bus services is restricted to students, faculty, and staff of Academy of Art University. ID badges are required to board vehicles. Riders without ID are not permitted unless accompanied by students or staff with ID.

AAU's fleet of buses and vans also provides on-demand shuttle service for class field trips, student activities, athletics, faculty & staff transportation needs, and regular voluntary and charitable donations of transportation for local community needs. On-demand shuttle service is limited to thirty trips per day, and must be requested in advance by departmental administrative staff via web-based scheduling software.

Fixed Route Structure

Routing needs are determined by location of facilities, clustered proximity of these buildings to one another, student population density within these clustered locations, daily opening and closing times of these buildings, and class start/end times. Clusters of academic buildings within a radius of up to two city blocks are served by a single designated shuttle stop. Shuttle stops are added to support new university locations when these locations lie outside the two-block radius of any pre-existing shuttle stops, but only if per-day ridership necessitates such an addition on an ongoing basis.

There are three types of fixed-route services: Regular loop routes, Express routes, and Limited-Direct routes.

Regular loop routes are designed to connect more than two buildings within a specific area of campus, and to connect to shuttle bus hubs, from which students can transfer to other routes thereby reaching other areas of campus.

Express routes are continuous regular loop routes with only two stops.

Limited/Direct routes supplement the regular looping shuttle service, and are only provided during peak periods. These routes allow students to travel directly between classes from far sides of the campus more quickly because they eliminate hub-transfer.

Shuttle buses are routed to travel the most direct and least congested path among locations, with the following controls:

- No streets and areas restricted by SFMTA

- No streets or areas where residential complaints have been resolved with an agreement to keep buses away

Bus Stops

There are three types of bus stops:

- Regular Stop
- Hub Stop
- Flag Stop

Regular Stops

Wherever possible, AAU will apply for white passenger loading zones for shuttle bus loading along the frontage of the AAU buildings, pending SFMTA approval. If a zone is desired in an area where no AAU building frontage exists, AAU will seek a letter of concurrence from the owner of the property adjoining the desired curb space. Length of passenger loading zones requested depends on the length and frequency of the vehicles serving the location. Typical lengths are 20- to 25-foot zones for small and medium length buses, and 40- to 103-foot zones for the frequent loading of larger transit buses.

Hub Stops

Bus hubs are shuttle stops shared by all routes in the system, designed to allow students, faculty, and staff to transfer from one route to another in cases where direct service via the continuously looping routes is unavailable. No breaks or layovers are conducted at the designated hub locations. Route schedules are designed without lag times that would allow for idling or layovers at hubs or other stops. Change of drivers does occur at hub locations and takes less than five minutes. Hub stops are located in areas where sufficient passenger loading zones are available to accommodate the need for bus loading. Curb usage is monitored via surveillance cameras by the Transportation Department to ensure that sufficient number of spaces are available. The majority of fixed-route shuttles are scheduled with relief drivers taking over at hub stops to maintain looping service on routes while regular drivers are on break. In cases where ridership demand does not support continuous looping service, shuttles are designated to return to the bus yard during breaks.

Bus layover is required at times. When scheduled breaks do not permit buses to return to the bus yard without excessive carbon footprint, shuttles are directed to use legal parking spaces as available in the vicinity. Parking meter cards are issued to these drivers as needed.

Flag Stops

Flag stops may be established if average ridership per day is less than 20 passengers. In such cases these locations are not assigned stop times, but are indicated along routes as places where drivers stop and board passengers only if someone is waiting at the curb and signals to the bus that they wish to board.

Operating Policy

Diesel buses are equipped with auto-shutoff anti-idling regulators which activate after five minutes. Gasoline buses are not equipped in this way, as the idling of gas buses is not regulated by California's commercial vehicle idling laws. Field Supervisors are tasked with daily surveillance of hub locations to ensure that vehicles are not stacking up, and are not laying over.

Frequency of service is monitored and adjusted prior to the start of each semester, and is subject to adjustment mid-semester as well. Ridership data (on-boarding) is gathered by bus drivers, and routes are continually monitored for hour-by-hour ridership statistics. The following threshold criteria are applied for peak and off-peak-hour frequencies when making adjustments:

During peak hours, shuttle frequencies increase as needed. Frequencies are evaluated and adjusted based on comparison of data about shuttle loads received from drivers' passenger count sheets, student feedback, and driver reports about overloading. If shuttles are filled to maximum capacity, standing room is utilized, and auxiliary shuttles are required. Backup routes are scheduled as limited regular service to supplement during peak periods only.

When average ridership per day on a given loop at a certain off-peak time of day indicates low usage of that loop in per-hour periods of two or more consecutive hours, the loop will be considered for removal if total average daily ridership indicates fewer than 10 passengers on-boarding per-hour during that time period daily.

Changes in building hours necessitate the cancellation or addition of service.

Bus Fleet

The size and quantity of vehicles assigned to each route are monitored and adjusted prior to the start of each semester, and are subject to adjustment throughout each semester as well. When route ridership falls below average threshold minimums, quantity of shuttles on a given route will be decreased, and/or vehicle size will be adjusted, and/or routes may go out of service entirely during the predictable periods of low ridership. Determinations about which of these measures are appropriate are made by factors such as alternative bus availability and passenger data. The following threshold criteria are applied when making adjustments:

When the on-boarding average ridership per day on a given bus indicates low usage of that bus throughout the day, the bus will be considered for removal from the route if total average daily ridership indicates fewer than 40 passengers per day.

Vehicles are replaced or retrofitted to comply with California Air Resource Board low emission requirements. Fleet is maintained as predominantly gas-fueled vehicles. Vehicle replacement policy is to progressively minimize quantity of diesel vehicles in fleet.

Management, Coordination, and Communication

AAU is committed to provide students, faculty, and staff with convenient and easily accessible data on shuttle bus routes and schedules. AAU provides shuttle routes and schedules on the AAU website and includes the data in the kiosks in the lobbies of academic buildings. AAU also provides a mobile app which gives students, faculty, and staff access to GPS data, allowing them to locate shuttles en route.

AAU is committed to ongoing communication, problem solving, and cooperation to alleviate and eliminate complaints and concerns received from the public, adjacent neighbors, and city agencies. In addition, AAU transportation managers participate in SFMTA coordination meetings regarding bus stop policies and programs.

The Campus Safety Communication Center at 180 New Montgomery shares two-way radio access with drivers, dispatchers, supervisors and managers in the Transportation Department. This allows for quick response times in emergency situations.

AAU Shuttle Route Controls

When considering new, expanded, or relocated shuttle routes, routes shall avoid all residential streets where feasible. If it is infeasible to avoid residential streets due to the location of the AAU building, AAU’s shuttle routing will take into account factors such as stop locations, schedules, and the minimum size of shuttle vehicle needed to meet demand.

Drivers on established shuttle routes shall generally adhere to those routes. In cases of congestion, shuttle drivers shall avoid diverting to residential streets.

As routes change, AAU will document changes/selection of routes and make the documentation available to the City and the public promptly on the AAU website, annually directly to the City, and upon request directly to members of the public.

AAU will conduct routine (Fall, Spring and Summer term) analysis of shuttle ridership demand and routes to make necessary adjustments. This analysis shall include goals of reducing routes/buses with low capacity utilization and methods to address any community concerns.

For more efficient routing and perhaps the reduction of shuttles, AAU will identify the shuttle vehicles that can accommodate standing riders and calculate shuttle capacity based on both seated and standing passengers, similar to how public transit capacity is determined. Use this capacity information in the triannual optimization analysis of shuttle ridership demand, routes, and adjustments.

AAU will provide a contact for shuttle bus traffic/routing to the public and for the City. This contact information will be posted clearly on AAU's website. AAU will log, and make available to the City upon request, all complaints and resulting resolutions of complaints related to shuttle routing and/or service.

AAU Shuttle Stop Controls

No use of Muni or regional transit stops by AAU shuttles unless previously approved by SFMTA.

Establish shuttle routes and stops to minimize the risk of double-parking. Inform shuttle drivers not to double-park or otherwise block vehicle travel lanes to load or unload shuttle passengers unless both a) the shuttle driver cannot stop at an AAU white zone or other AAU stop because it is blocked by an unauthorized vehicle; and b) the driver promptly notifies the Department of Parking and Traffic of the unauthorized blockage. When AAU double parking or blocking of vehicle lanes that is not caused by such third-party activity is documented to occur, AAU shall take measures to correct this traffic violation (such as through the provision of a white zone, or relocation of a shuttle stop).

Shuttles shall not idle at stops when not actively loading or unloading passengers, particularly at hub stops.

Similar to route controls, AAU will provide a contact person for AAU shuttle stop concerns from the public, which will be clearly posted on AAU's website, and will keep a log of any complaints received, with resolutions to be made available to the City upon request.

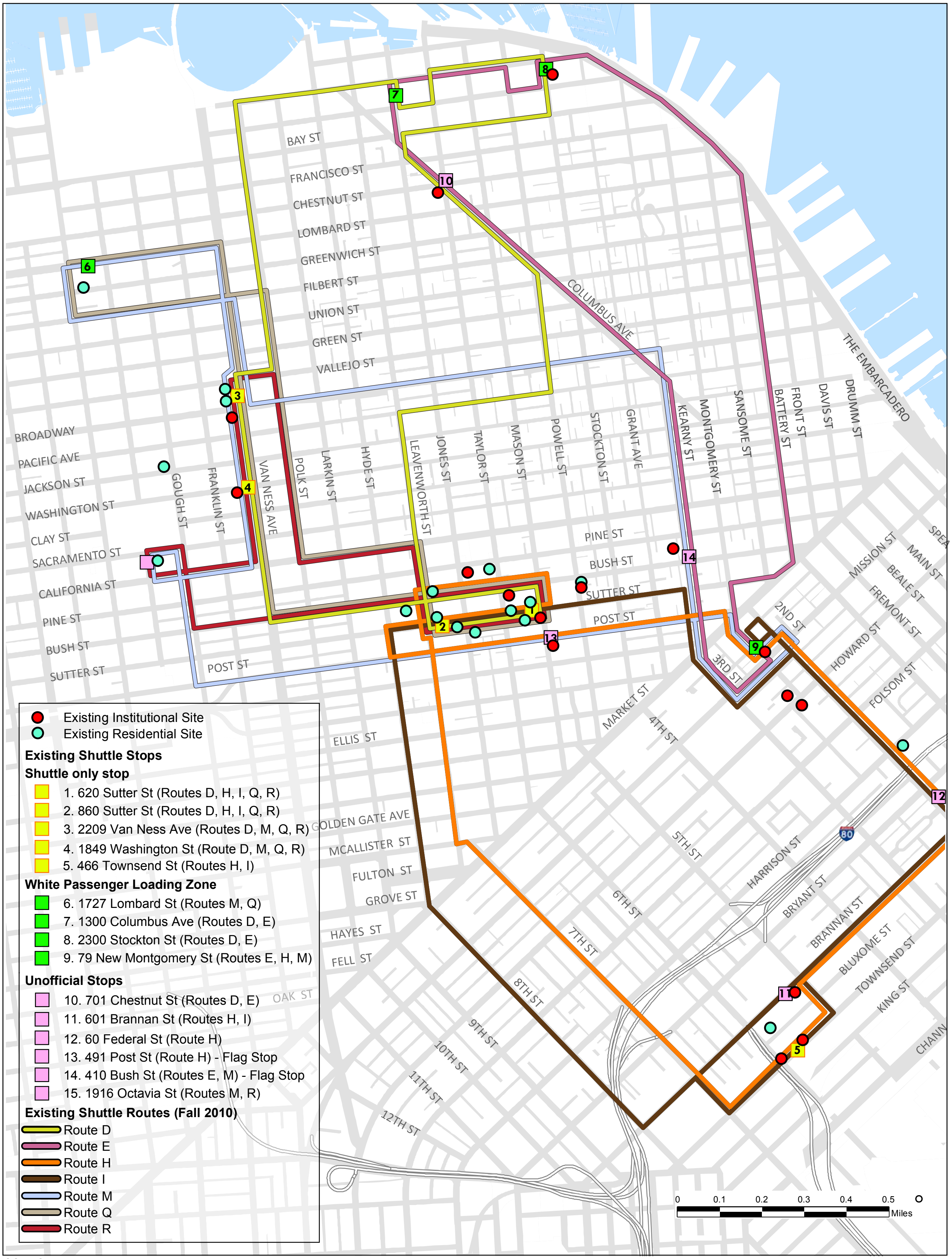
As changes are made or flag stops established, make these changes available to the City.

Provide direct contact for MTA of “two-way radio access” operator, i.e. the AAU Communications Center and Transportation Dispatcher, to resolve any day-to-day concerns from Muni drivers as they arise.

Appendix TR-B: Shuttle Bus Maps

Fall 2010

Shuttle Service Routes & Schedules



SOURCE: AAU, 2013; Atkins, 2013.

EXISTING SHUTTLE ROUTES AND STOPS (FALL 2010)

	620 SUTTER	860 SUTTER	CHESTNUT	NORTHPOINT	HOLIDAY INN	VAN NESS	WAREHOUSE
					7:02 AM	7:10 AM	7:12 AM
D 1	7:20 AM	7:22 AM	7:32 AM	7:40 AM	7:42 AM	7:50 AM	7:52 AM
	8:00 AM	8:02 AM	8:12 AM	8:20 AM	8:22 AM	8:30 AM	8:32 AM
	8:40 AM	8:42 AM	8:52 AM	8:55 AM	8:57 AM	BREAK	
				9:10 AM	9:12 AM	9:20 AM	9:22 AM
	9:30 AM	9:32 AM	9:42 AM	9:50 AM	9:52 AM	10:00 AM	10:02 AM
	10:10 AM	10:12 AM	10:22 AM	10:30 AM	10:32 AM	10:40 AM	10:42 AM
	10:50 AM	10:52 AM	11:02 AM	11:10 AM	11:12 AM	11:20 AM	11:22 AM
	11:30 AM	11:32 AM	11:42 AM	11:50 AM	11:52 AM	12:00 PM	12:02 PM
	12:10 PM	12:12 PM	12:22 PM	12:30 PM	12:32 PM	12:40 PM	12:42 PM
	12:50 PM	12:52 PM	1:02 PM	1:10 PM	1:12 PM	1:20 PM	1:22 PM
	1:30 PM	1:32 PM	1:42 PM	1:45 PM	1:47 PM	BREAK	
				2:00 PM	2:02 PM	2:10 PM	2:12 PM
	2:20 PM	2:22 PM	2:32 PM	2:40 PM	2:42 PM	2:50 PM	2:52 PM
	3:00 PM	3:02 PM	3:12 PM	3:20 PM	3:22 PM	3:30 PM	3:32 PM
	3:40 PM	3:42 PM	3:52 PM	4:00 PM	4:02 PM	4:10 PM	4:12 PM
	4:20 PM	4:22 PM	4:32 PM	4:35 PM	4:37 PM	BREAK	
				4:50 PM	4:52 PM	5:00 PM	5:02 PM
	5:10 PM	5:12 PM	5:22 PM	5:30 PM	5:32 PM	5:40 PM	5:42 PM
	5:50 PM	5:52 PM	6:02 PM	6:10 PM	6:12 PM	6:20 PM	6:22 PM
	6:30 PM	6:32 PM	6:42 PM	6:50 PM	6:52 PM	7:00 PM	7:02 PM
	7:10 PM	7:12 PM	7:22 PM	7:30 PM	7:32 PM	7:40 PM	7:42 PM
	7:50 PM	7:52 PM	8:02 PM	8:10 PM	8:12 PM	8:20 PM	8:22 PM
	8:30 PM	8:32 PM	8:42 PM	8:45 PM	8:47 PM	BREAK	
				8:55 PM	8:57 PM	9:05 PM	9:07 PM
	9:15 PM	9:17 PM	9:27 PM	9:30 PM	9:32 PM	9:40 PM	9:42 PM
	9:50 PM	9:52 PM	10:05 PM	10:10 PM	10:12 PM	10:20 PM	10:22 PM
	To All Residence Halls						

620 SUTTER	860 SUTTER	CHESTNUT	NORTHPOINT	HOLIDAY INN	VAN NESS	WAREHOUSE
				7:22 AM	7:30 AM	7:32 AM
7:40 AM	7:42 AM	7:52 AM	8:00 AM	8:02 AM	8:10 AM	8:12 AM
8:20 AM	8:22 AM	8:32 AM	8:40 AM	8:42 AM	8:50 AM	8:52 AM
9:00 AM	9:02 AM	9:12 AM	9:20 AM	9:22 AM	BREAK	
			9:35 AM	9:37 AM	9:45 AM	9:47 AM
9:55 AM	9:57 AM	10:05 AM	10:10 AM	10:12 AM	10:20 AM	10:22 AM
10:30 AM	10:32 AM	10:42 AM	10:50 AM	10:52 AM	11:00 AM	11:02 AM
11:10 AM	11:12 AM	11:22 AM	11:30 AM	11:32 AM	11:40 AM	11:42 AM
11:50 AM	11:52 AM	12:02 PM	12:10 PM	12:12 PM	12:20 PM	12:22 PM
12:30 PM	12:32 PM	12:42 PM	12:50 PM	12:52 PM	1:00 PM	1:02 PM
1:10 PM	1:12 PM	1:22 PM	1:30 PM	1:32 PM	BREAK	
			1:45 PM	1:47 PM	1:55 PM	1:57 PM
2:05 PM	2:07 PM	2:15 PM	2:20 PM	2:22 PM	2:30 PM	2:32 PM
2:40 PM	2:42 PM	2:52 PM	3:00 PM	3:02 PM	3:10 PM	3:12 PM
3:20 PM	3:22 PM	3:32 PM	3:40 PM	3:42 PM	3:50 PM	3:52 PM
4:00 PM	4:02 PM	4:12 PM	4:20 PM	4:22 PM	4:30 PM	4:32 PM
4:40 PM	4:42 PM	4:52 PM	4:55 PM	4:57 PM	BREAK	
			5:10 PM	5:12 PM	5:20 PM	5:22 PM
5:30 PM	5:32 PM	5:42 PM	5:50 PM	5:52 PM	6:00 PM	6:02 PM
6:10 PM	6:12 PM	6:22 PM	6:30 PM	6:32 PM	6:40 PM	6:42 PM
6:50 PM	6:52 PM	7:02 PM	7:10 PM	7:12 PM	7:20 PM	7:22 PM
7:30 PM	7:32 PM	7:42 PM	7:50 PM	7:52 PM	8:00 PM	8:02 PM
8:10 PM	8:12 PM	8:22 PM	8:30 PM	8:32 PM	8:40 PM	8:42 PM
8:50 PM	8:52 PM	9:02 PM	9:10 PM	9:12 PM	9:20 PM	9:22 PM
9:30 PM	9:32 PM	9:42 PM	9:50 PM	9:52 PM	10:00 PM	10:02 PM
10:10 PM	10:12 PM	10:22 PM	10:30 PM	10:32 PM	BREAK	
			10:50 PM	10:52 PM	11:00 PM	11:02 PM
11:10 PM	11:12 PM	11:22 PM	11:30 PM	11:32 PM	11:40 PM	11:42 PM
11:50 PM	11:52 PM	12:05 AM	12:10 AM	12:12 AM		
To All Residence Halls						

	79 NM	CHESTNUT	HOLIDAY INN	NORTHPOINT
E 1	7:15 AM	7:25 AM	7:27 AM	7:30 AM
	7:45 AM	7:55 AM	7:57 AM	8:00 AM
	8:15 AM	8:25 AM	8:27 AM	8:30 AM
	8:45 AM	8:55 AM	8:57 AM	9:00 AM
	BREAK			9:15 AM
	9:30 AM	9:40 AM	9:42 AM	9:45 AM
	10:00 AM	10:10 AM	10:12 AM	10:15 AM
	10:30 AM	10:40 AM	10:42 AM	10:45 AM
	BREAK			11:00 AM
	11:15 AM	11:25 AM	11:27 AM	11:30 AM
	11:45 AM	11:55 AM	11:57 AM	12:00 PM
	12:15 PM	12:25 PM	12:27 PM	12:30 PM
	12:45 PM	12:55 PM	12:57 PM	1:00 PM
	1:15 PM	1:25 PM	1:27 PM	1:30 PM
	1:45 PM	1:55 PM	1:57 PM	2:00 PM
	2:15 PM	2:25 PM	2:27 PM	2:30 PM
	2:45 PM	2:55 PM	2:57 PM	3:00 PM
	3:20 PM	3:30 PM	3:32 PM	3:35 PM
	3:55 PM	4:05 PM	4:07 PM	4:10 PM
	4:30 PM	4:40 PM	4:42 PM	4:45 PM
	5:05 PM	5:15 PM	5:17 PM	5:20 PM
	BREAK			5:35 PM
	5:55 PM	6:05 PM	6:07 PM	6:10 PM
	6:30 PM	6:40 PM	6:42 PM	6:45 PM
	7:00 PM	7:10 PM	7:12 PM	7:15 PM
	7:30 PM	7:40 PM	7:42 PM	7:45 PM
	8:00 PM	8:10 PM	8:12 PM	8:15 PM
	8:30 PM	8:40 PM	8:42 PM	8:45 PM
	9:00 PM	9:10 PM	9:12 PM	9:15 PM
	BREAK			9:30 PM
	9:45 PM	9:55 PM	9:57 PM	10:00 PM
	10:15 PM	10:25 PM	10:27 PM	10:30 PM
	10:45 PM	10:55 PM	10:57 PM	11:00 PM
	11:15 PM	11:25 PM	11:27 PM	11:30 PM
	BREAK			11:40 PM
	11:55 PM	12:05 AM	12:07 AM	12:10 AM
	To All Residence Halls			

	79 NM	CHESTNUT	HOLIDAY INN	NORTHPOINT
E 2	7:30 AM	7:40 AM	7:42 AM	7:45 AM
	8:00 AM	8:10 AM	8:12 AM	8:15 AM
	8:30 AM	8:40 AM	8:42 AM	8:45 AM
	9:00 AM	9:10 AM	9:12 AM	9:15 AM
	BREAK			9:30 AM
	9:45 AM	9:55 AM	9:57 AM	10:00 AM
	10:15 AM	10:25 AM	10:27 AM	10:30 AM
	10:45 AM	10:55 AM	10:57 AM	11:00 AM
	BREAK			11:15 AM
	11:30 AM	11:40 AM	11:42 AM	11:45 AM
	12:00 PM	12:10 PM	12:12 PM	12:15 PM
	12:30 PM	12:40 PM	12:42 PM	12:45 PM
	1:00 PM	1:10 PM	1:12 PM	1:15 PM
	1:30 PM	1:40 PM	1:42 PM	1:45 PM
	2:00 PM	2:10 PM	2:12 PM	2:15 PM
	2:30 PM	2:40 PM	2:42 PM	2:45 PM
	3:00 PM	3:10 PM	3:12 PM	3:15 PM
	3:35 PM	3:45 PM	3:47 PM	3:50 PM
	4:05 PM	4:20 PM	4:22 PM	4:25 PM
	4:45 PM	4:55 PM	4:57 PM	5:00 PM
	BREAK			5:15 PM
	5:35 PM	5:45 PM	5:47 PM	5:50 PM
	6:10 PM	6:20 PM	6:22 PM	6:25 PM
	6:45 PM	6:55 PM	6:57 PM	7:00 PM
	7:15 PM	7:25 PM	7:27 PM	7:30 PM
	7:45 PM	7:55 PM	7:57 PM	8:00 PM
	8:15 PM	8:25 PM	8:27 PM	8:30 PM
	8:45 PM	8:55 PM	8:57 PM	9:00 PM
	BREAK			9:15 PM
	9:30 PM	9:40 PM	9:42 PM	9:45 PM
	10:00 PM	10:10 PM	10:12 PM	10:15 PM
	10:30 PM	10:40 PM	10:42 PM	10:45 PM
	11:00 PM	To All Residence Halls		

	79 NM	FEDERAL	BRANNAN	TOWNSEND	620 SUTTER	860 SUTTER	POST
H-1					7:15 AM	7:18 AM	7:20 AM
	7:30 AM	7:34 AM	7:38 AM	7:45 AM	7:55 AM	7:58 AM	8:00 AM
	8:10 AM	8:14 AM	8:18 AM	8:25 AM	8:35 AM	8:38 AM	8:40 AM
	8:50 AM	8:54 AM	8:58 AM	9:05 AM	9:15 AM	9:18 AM	9:20 AM
	9:30 AM	9:34 AM	9:38 AM	9:45 AM	9:55 AM	9:58 AM	10:00 AM
	10:10 AM	10:14 AM	10:18 AM	10:25 AM	10:35 AM	10:38 AM	10:40 AM
	10:50 AM	10:54 AM	10:58 AM	11:05 AM	11:15 AM	11:18 AM	11:20 AM
	11:30 AM	11:34 AM	11:38 AM	11:45 AM	11:55 AM	11:58 AM	12:00 PM
	12:10 PM	12:14 PM	12:18 PM	12:25 PM	12:35 PM	12:38 PM	12:40 PM
	12:50 PM	12:54 PM	12:58 PM	1:05 PM	1:15 PM	1:18 PM	1:20 PM
	1:30 PM	1:34 PM	1:38 PM	1:45 PM	1:55 PM	1:58 PM	2:00 PM
	2:10 PM	2:14 PM	2:18 PM	2:25 PM	2:35 PM	2:38 PM	2:40 PM
	2:50 PM	2:54 PM	2:58 PM	3:05 PM	3:15 PM	3:18 PM	3:20 PM
	3:30 PM	3:35 PM	3:40 PM	3:45 PM	3:58 PM	4:00 PM	4:02 PM
	4:15 PM	4:20 PM	4:25 PM	4:30 PM	4:43 PM	4:45 PM	4:47 PM
	5:00 PM	5:05 PM	5:10 PM	5:15 PM	5:28 PM	5:30 PM	5:32 PM
	5:45 PM	5:50 PM	5:55 PM	6:00 PM	6:13 PM	6:15 PM	6:17 PM
	6:25 PM	6:29 PM	6:33 PM	6:40 PM	6:53 PM	6:55 PM	6:57 PM
	7:05 PM	7:09 PM	7:13 PM	7:20 PM	7:33 PM	7:35 PM	7:37 PM
	7:45 PM	7:49 PM	7:53 PM	8:00 PM	8:13 PM	8:15 PM	8:17 PM
	8:25 PM	8:29 PM	8:33 PM	8:40 PM	8:53 PM	8:55 PM	8:57 PM
	9:05 PM	9:09 PM	9:13 PM	9:20 PM	9:33 PM	9:35 PM	9:37 PM
	9:45 PM	9:49 PM	9:53 PM	10:00 PM	10:13 PM	10:15 PM	10:17 PM
	10:25 PM	10:29 PM	10:33 PM	10:40 PM	10:53 PM	10:55 PM	10:57 PM
	11:05 PM	11:09 PM	11:13 PM	11:20 PM	11:33 PM	11:35 PM	11:37 PM
	11:45 PM	11:49 PM	11:53 PM	12:05 AM	12:15 AM	12:17 AM	12:19 AM
	79 NM	180 NM					
	12:25 AM	12:30 AM	To All Residence Halls				
	1:15 AM	1:20 AM	To All Residence Halls				
	1:45 AM	1:50 AM	To All Residence Halls				

	79 NM	FEDERAL	BRANNAN	TOWNSEND	620 SUTTER	860 SUTTER	POST
H-2	7:15 AM	7:19 AM	7:23 AM	7:30 AM	7:40 AM	7:43 AM	7:45 AM
	7:55 AM	7:59 AM	8:03 AM	8:10 AM	8:20 AM	8:23 AM	8:25 AM
	8:35 AM	8:39 AM	8:43 AM	8:50 AM	9:00 AM	9:03 AM	9:05 AM
	9:15 AM	9:19 AM	9:23 AM	9:30 AM	9:40 AM	9:43 AM	9:45 AM
	9:55 AM	9:59 AM	10:03 AM	10:10 AM	10:20 AM	10:23 AM	10:25 AM
	10:35 AM	10:39 AM	10:43 AM	10:50 AM	11:00 AM	11:03 AM	11:05 AM
	11:15 AM	11:19 AM	11:23 AM	11:30 AM	11:40 AM	11:43 AM	11:45 AM
	11:55 AM	11:59 AM	12:03 PM	12:10 PM	12:20 PM	12:23 PM	12:25 PM
	12:35 PM	12:39 PM	12:43 PM	12:50 PM	1:00 PM	1:03 PM	1:05 PM
	1:15 PM	1:19 PM	1:23 PM	1:30 PM	1:40 PM	1:43 PM	1:45 PM
	1:55 PM	1:59 PM	2:03 PM	2:10 PM	2:20 PM	2:23 PM	2:25 PM
	2:35 PM	2:39 PM	2:43 PM	2:50 PM	3:00 PM	3:03 PM	3:05 PM
	3:15 PM	3:20 PM	3:25 PM	3:30 PM	3:43 PM	3:45 PM	3:47 PM
	4:00 PM	4:05 PM	4:10 PM	4:15 PM	4:28 PM	4:30 PM	4:32 PM
	4:45 PM	4:50 PM	4:55 PM	5:00 PM	5:13 PM	5:15 PM	5:17 PM
	5:30 PM	5:35 PM	5:40 PM	5:45 PM	5:58 PM	6:00 PM	6:02 PM
	6:15 PM	6:20 PM	6:25 PM	6:30 PM	6:43 PM	6:45 PM	6:47 PM
	6:55 PM	6:59 PM	7:03 PM	7:10 PM	7:20 PM	7:22 PM	7:24 PM
	7:35 PM	7:39 PM	7:43 PM	7:50 PM	8:00 PM	8:02 PM	8:04 PM
	8:15 PM	8:19 PM	8:23 PM	8:30 PM	8:40 PM	8:42 PM	8:44 PM
	8:55 PM	8:59 PM	9:03 PM	9:10 PM	9:20 PM	9:22 PM	9:24 PM
	9:35 PM	9:39 PM	9:43 PM	9:50 PM	10:00 PM	10:02 PM	10:04 PM
	10:15 PM	10:19 PM	10:23 PM	10:30 PM	10:40 PM	10:42 PM	10:44 PM
	10:55 PM	10:59 PM	11:03 PM	11:10 PM	11:20 PM	11:22 PM	11:24 PM
	11:35 PM	11:39 PM	11:43 PM	11:50 PM	12:00 AM	12:02 AM	12:04 AM
	79 NM	180 NM					
	12:10 AM	12:15 AM	To All Residence Halls				
	1:00 AM	1:05 AM	To All Residence Halls				
	1:30 AM	1:35 AM	To All Residence Halls				
	2:00 AM	2:05 AM	To All Residence Halls				

H-3

79 NM	FEDERAL	BRANNAN	TOWNSEND	620 SUTTER	860 SUTTER	POST
				7:30 AM	7:32 AM	7:34 AM
7:45 AM	7:49 AM	7:53 AM	8:00 AM	8:10 AM	8:12 AM	8:14 AM
8:25 AM	8:29 AM	8:33 AM	8:40 AM	8:50 AM	8:52 AM	8:54 AM
9:05 AM	9:09 AM	9:13 AM	9:20 AM	9:30 AM	9:32 AM	9:34 AM
9:45 AM	9:49 AM	9:53 AM	10:00 AM	10:10 AM	10:12 AM	10:14 AM
10:25 AM	10:29 AM	10:33 AM	10:40 AM	10:50 AM	10:52 AM	10:54 AM
11:05 AM	11:09 AM	11:13 AM	11:20 AM	11:30 AM	11:32 AM	11:34 AM
11:45 AM	11:49 AM	11:53 AM	12:00 PM	12:10 PM	12:12 PM	12:14 PM
12:25 PM	12:29 PM	12:33 PM	12:40 PM	12:50 PM	12:52 PM	12:54 PM
1:05 PM	1:09 PM	1:13 PM	1:20 PM	1:30 PM	1:32 PM	1:34 PM
1:45 PM	1:49 PM	1:53 PM	2:00 PM	2:10 PM	2:12 PM	2:14 PM
2:25 PM	2:29 PM	2:33 PM	2:40 PM	2:50 PM	2:52 PM	2:54 PM
3:00 PM	3:05 PM	3:10 PM	3:15 PM	3:28 PM	3:30 PM	3:32 PM
3:45 PM	3:50 PM	3:55 PM	4:00 PM	4:13 PM	4:15 PM	4:17 PM
4:30 PM	4:35 PM	4:40 PM	4:45 PM	4:58 PM	5:00 PM	5:02 PM
5:15 PM	5:20 PM	5:25 PM	5:30 PM	5:43 PM	5:45 PM	5:47 PM
6:00 PM	6:05 PM	6:10 PM	6:15 PM	6:28 PM	6:30 PM	6:32 PM
6:40 PM	6:44 PM	6:48 PM	6:55 PM	7:05 PM	7:07 PM	7:09 PM
7:20 PM	7:24 PM	7:28 PM	7:35 PM	7:45 PM	7:47 PM	7:49 PM
8:00 PM	8:04 PM	8:08 PM	8:15 PM	8:25 PM	8:27 PM	8:29 PM
8:40 PM	8:44 PM	8:48 PM	8:55 PM	9:05 PM	9:07 PM	9:09 PM
9:20 PM	9:24 PM	9:28 PM	9:35 PM	9:45 PM	9:47 PM	9:49 PM
10:00 PM	10:04 PM	10:08 PM	10:10 PM	10:20 PM	10:22 PM	10:24 PM
10:35 PM	10:39 PM	10:43 PM	10:45 PM	10:55 PM	10:57 PM	10:59 PM
11:05 PM	To All Residence Halls					

H 4

620 SUTTER	860 SUTTER	POST	79 NM	FEDERAL	BRANNAN	TOWNSEND
8:00 AM	8:02 AM	8:04 AM	8:10 AM	8:15 AM	8:20 AM	8:22 AM
8:34 AM	8:36 AM	8:38 AM	8:45 AM	8:50 AM	8:55 AM	8:57 AM
9:10 AM	9:12 AM	9:14 AM	9:20 AM	9:25 AM	9:30 AM	9:32 AM
					10:50 AM	10:55 AM
11:08 AM	11:10 AM	11:12 AM	11:20 AM	11:25 AM	11:30 AM	11:33 AM
11:45 AM	11:47 AM	11:49 AM	11:55 AM	12:00 PM	12:05 PM	12:08 PM
12:20 PM	12:22 PM	12:24 PM	12:30 PM	12:35 PM	12:40 PM	12:42 PM
2:55 PM	2:57 PM	2:59 PM	3:05 PM	3:09 PM	3:15 PM	3:18 PM
3:30 PM	3:32 PM	3:34 PM	3:40 PM	3:44 PM	3:48 PM	3:50 PM
4:02 PM	4:04 PM	4:06 PM	4:12 PM	4:16 PM	4:20 PM	4:22 PM
					6:05 PM	6:08 PM
6:20 PM	6:22	6:24 PM	6:30 PM	6:34 PM	6:38 PM	6:40 PM
6:50 PM	6:52 PM	6:54 PM	7:00 PM	7:04 PM	7:08 PM	7:10 PM
To All Residence Halls						

I-1

79 NM	620 SUTTER	860 SUTTER	BRANNAN	TOWNSEND	FEDERAL
7:15 AM	7:25 AM	7:27 AM	7:37 AM	7:40 AM	7:45 AM
7:55 AM	8:05 AM	8:07 AM	8:17 AM	8:20 AM	8:25 AM
8:35 AM	8:45 AM	8:47 AM	8:57 AM	9:00 AM	9:05 AM
9:15 AM	9:25 AM	9:27 AM	9:37 AM	9:40 AM	9:45 AM
9:55 AM	10:05 AM	10:07 AM	10:17 AM	10:20 AM	10:25 AM
10:35 AM	10:45 AM	10:47 AM	10:57 AM	11:00 AM	11:05 AM
11:15 AM	11:25 AM	11:27 AM	11:37 AM	11:40 AM	11:45 AM
11:55 AM	12:05 PM	12:07 PM	12:17 PM	12:20 PM	12:25 PM
12:35 PM	12:45 PM	12:47 PM	12:57 PM	1:00 PM	1:05 PM
1:15 PM	1:25 PM	1:27 PM	1:37 PM	1:40 PM	1:45 PM
1:55 PM	2:05 PM	2:07 PM	2:17 PM	2:20 PM	2:25 PM
2:35 PM	2:45 PM	2:47 PM	2:57 PM	3:00 PM	3:05 PM
3:15 PM	3:25 PM	3:27 PM	3:37 PM	3:40 PM	3:47 PM
4:00 PM	4:10 PM	4:12 PM	4:22 PM	4:25 PM	4:32 PM
4:45 PM	4:55 PM	4:57 PM	5:07 PM	5:10 PM	5:17 PM
5:30 PM	5:40 PM	5:42 PM	5:52 PM	5:55 PM	6:02 PM
6:15 PM	6:25 PM	6:27 PM	6:37 PM	6:40 PM	6:47 PM
6:55 PM	7:05 PM	7:07 PM	7:17 PM	7:20 PM	7:27 PM
7:35 PM	7:45 PM	7:47 PM	7:57 PM	8:00 PM	8:05 PM
8:15 PM	8:25 PM	8:27 PM	8:37 PM	8:40 PM	8:45 PM
8:55 PM	9:05 PM	9:07 PM	9:17 PM	9:20 PM	9:25 PM
9:35 PM	9:45 PM	9:47 PM	9:57 PM	10:00 PM	10:05 PM
10:15 PM	10:25 PM	10:27 PM	10:37 PM	10:40 PM	10:45 PM
10:55 PM	11:05 PM	11:07 PM	11:17 PM	11:20 PM	11:25 PM
11:35 PM	To All Residence Halls				

I-2

79 NM	620 SUTTER	860 SUTTER	BRANNAN	TOWNSEND	FEDERAL
			7:12 AM	7:15 AM	7:20 AM
7:30 AM	7:40 AM	7:42 AM	7:52 AM	7:55 AM	8:00 AM
8:10 AM	8:20 AM	8:22 AM	8:32 AM	8:35 AM	8:40 AM
8:50 AM	9:00 AM	9:02 AM	9:12 AM	9:15 AM	9:20 AM
9:30 AM	9:40 AM	9:42 AM	9:52 AM	9:55 AM	10:00 AM
10:10 AM	10:20 AM	10:22 AM	10:32 AM	10:35 AM	10:40 AM
10:50 AM	11:00 AM	11:02 AM	11:12 AM	11:15 AM	11:20 AM
11:30 AM	11:40 AM	11:42 AM	11:52 AM	11:55 AM	12:00 PM
12:10 PM	12:20 PM	12:22 PM	12:32 PM	12:35 PM	12:40 PM
12:50 PM	1:00 PM	1:02 PM	1:12 PM	1:15 PM	1:20 PM
1:30 PM	1:40 PM	1:42 PM	1:52 PM	1:55 PM	2:00 PM
2:10 PM	2:20 PM	2:22 PM	2:32 PM	2:35 PM	2:40 PM
2:50 PM	3:00 PM	3:02 PM	3:12 PM	3:15 PM	3:20 PM
3:30 PM	3:40 PM	3:42 PM	3:52 PM	3:55 PM	4:02 PM
4:15 PM	4:25 PM	4:27 PM	4:37 PM	4:40 PM	4:47 PM
5:00 PM	5:10 PM	5:12 PM	5:22 PM	5:25 PM	5:32 PM
5:45 PM	5:55 PM	5:57 PM	6:07 PM	6:10 PM	6:17 PM
6:25 PM	6:35 PM	6:37 PM	6:47 PM	6:50 PM	6:57 PM
7:05 PM	7:15 PM	7:17 PM	7:27 PM	7:30 PM	7:35 PM
7:45 PM	7:55 PM	7:57 PM	8:07 PM	8:10 PM	8:15 PM
8:25 PM	8:35 PM	8:37 PM	8:47 PM	8:50 PM	8:55 PM
9:05 PM	9:15 PM	9:17 PM	9:27 PM	9:30 PM	9:35 PM
9:45 PM	9:55 PM	9:57 PM	10:07 PM	10:10 PM	10:15 PM
10:25 PM	10:35 PM	10:37 PM	10:47 PM	10:50 PM	10:55 PM
11:05 PM	11:15 PM	11:17 PM	11:27 PM	11:30 PM	11:35 PM
11:45 PM	11:55 PM	11:57 PM	12:07 AM	12:10 AM	12:15 AM
12:20 AM	To All Residence Halls				

I-3

79 NM	620 SUTTER	860 SUTTER	BRANNAN	TOWNSEND	FEDERAL
	7:15 AM	7:17 AM	7:27 AM	7:30 AM	7:35 AM
7:45 AM	7:55 AM	7:57 AM	8:07 AM	8:10 AM	8:15 AM
8:25 AM	8:35 AM	8:37 AM	8:47 AM	8:50 AM	8:55 AM
9:05 AM	9:15 AM	9:17 AM	9:27 AM	9:30 AM	9:35 AM
9:45 AM	9:55 AM	9:57 AM	10:07 AM	10:10 AM	10:15 AM
10:25 AM	10:35 AM	10:37 AM	10:47 AM	10:50 AM	10:55 AM
11:05 AM	11:15 AM	11:17 AM	11:27 AM	11:30 AM	11:35 AM
11:45 AM	11:55 AM	11:57 AM	12:07 PM	12:10 PM	12:15 PM
12:25 PM	12:35 PM	12:37 PM	12:47 PM	12:50 PM	12:55 PM
1:05 PM	1:15 PM	1:17 PM	1:27 PM	1:30 PM	1:35 PM
1:45 PM	1:55 PM	1:57 PM	2:07 PM	2:10 PM	2:15 PM
2:25 PM	2:35 PM	2:37 PM	2:47 PM	2:50 PM	2:55 PM
3:05 PM	3:15 PM	3:17 PM	3:27 PM	3:30 PM	3:37 PM
3:50 PM	4:00 PM	4:02 PM	4:12 PM	4:15 PM	4:22 PM
4:35 PM	4:45 PM	4:47 PM	4:57 PM	5:00 PM	5:07 PM
5:20 PM	5:30 PM	5:32 PM	5:42 PM	5:45 PM	5:52 PM
6:05 PM	6:15 PM	6:17 PM	6:27 PM	6:30 PM	6:37 PM
6:45 PM	6:55 PM	6:57 PM	7:07 PM	7:10 PM	7:15 PM
7:25 PM	7:35 PM	7:37 PM	7:47 PM	7:50 PM	7:55 PM
8:05 PM	8:15 PM	8:17 PM	8:27 PM	8:30 PM	8:35 PM
8:45 PM	8:55 PM	8:57 PM	9:07 PM	9:10 PM	9:15 PM
9:25 PM	9:35 PM	9:37 PM	9:47 PM	9:50 PM	9:55 PM
10:05 PM	10:15 PM	10:17 PM	10:27 PM	10:30 PM	10:35 PM
10:40 PM	10:50 PM	10:52 PM	To All Residence Halls		

I-4

620 SUTTER	860 SUTTER	BRANNAN	TOWNSEND	FEDERAL	79 NM
8:00 AM	8:02 AM	8:12 AM	8:15 AM	8:20 AM	8:25 AM
8:35 AM	8:37 AM	8:47 AM	8:50 AM	8:55 AM	9:00 AM
9:10 AM	9:12 AM	9:22 AM	9:25 AM		
					11:05 AM
11:15 AM	11:17 AM	11:27 AM	11:30 AM	11:35 AM	11:40 AM
11:50 AM	11:52 AM	12:02 PM	12:05 PM	12:10 PM	12:15 PM
12:25 PM	12:27 PM	12:37 PM	12:40 PM		
		2:53 PM	2:55 PM	3:00 PM	3:05 PM
3:15 PM	3:17 PM	3:27 PM	3:30 PM	3:35 PM	3:40 PM
3:50 PM	3:52 PM	4:02 PM	4:05 PM		
		6:00 PM	6:03 PM	6:08 PM	6:15 PM
6:25 PM	6:27 PM	6:37 PM	6:40 PM	6:45 PM	6:50 PM
7:00 PM	7:02 PM	7:10 PM	7:12 PM		
To All Residence Halls					

	LOMBARD	VANNESS	WAREHOUSE	OCTAVIA	79 NM
	7:10 AM	7:13 AM	7:15 AM	7:20 AM	7:35 AM
M	7:55 AM	7:58 AM	8:00 AM	8:05 AM	8:20 AM
	8:40 AM	8:43 AM	8:45 AM	8:50 AM	9:05 AM
	9:25 AM	BREAK			
	9:40 AM	9:43 AM	9:45 AM	9:50 AM	10:05 AM
	10:25 AM	BREAK			
	10:40 AM	10:43 AM	10:45 AM	10:50 AM	11:05 AM
	11:25 AM	BREAK			
	11:35 AM	11:38 AM	11:40 AM	11:45 AM	12:05 PM
	12:25 PM				
	1:00 PM	1:03 PM	1:05 PM	1:10 PM	1:30 PM
	1:50 PM	1:53 PM	1:55 PM	2:00 PM	2:20 PM
	2:40 PM	2:43 PM	2:45 PM	2:50 PM	3:10 PM
	3:35 PM	3:38 PM	3:40 PM	3:45 PM	4:00 PM
	4:20 PM	BREAK			
	4:35 PM	4:38 PM	4:40 PM	4:45 PM	5:00 PM
	5:20 PM	BREAK			
	5:35 PM	5:38 PM	5:40 PM	5:45 PM	6:05 PM
	6:25 PM	6:28 PM	6:30 PM	6:35 PM	6:50 PM
	7:10 PM				
	7:40 PM	7:43 PM	7:45 PM	7:50 PM	8:05 PM
	8:25 PM	8:28 PM	8:30 PM	8:35 PM	8:50 PM
	9:10 PM	BREAK			
	9:25 PM	9:28 PM	9:30 PM	9:35 PM	9:55 PM
	10:15 PM	10:18 PM	10:20 PM	10:25 PM	10:40 PM
	11:00 PM	11:03 PM	11:05 PM	11:10 PM	11:30 PM
	11:50 PM	To All Residence Halls			

	620 SUTTER	860 SUTTER	LOMBARD	VAN NESS	WAREHOUSE
Q			7:15 AM	7:18 AM	7:20 AM
	7:30 AM	7:32 AM	7:45 AM	7:48 AM	7:50 AM
	8:00 AM	8:02 AM	8:15 AM	8:18 AM	8:20 AM
	8:30 AM	8:32 AM	8:45 AM	8:48 AM	8:50 AM
	9:00 AM	9:02 AM	9:15 AM	9:18 AM	9:20 AM
	9:30 AM	9:32 AM	9:45 AM	BREAK	
			10:00 AM	10:03 AM	10:05 AM
	10:15 AM	10:17 AM	10:30 AM	10:33 AM	10:35 AM
	10:45 AM	10:47 AM	11:00 AM	11:03 AM	11:05 AM
	11:15 AM	11:17 AM	11:30 AM	11:33 AM	11:35 AM
	11:45 AM	11:47 AM	12:00 PM	12:03 PM	12:05 PM
	12:15 PM	12:17 PM	12:30 PM	12:33 PM	12:35 PM
	12:45 PM	12:47 PM	1:00 PM	1:03 PM	1:05 PM
	1:15 PM	1:17 PM	1:30 PM	1:33 PM	1:35 PM
	1:45 PM	1:47 PM	2:00 PM	BREAK	
			2:15 PM	2:18 PM	2:20 PM
	2:30 PM	2:32 PM	2:45 PM	2:48 PM	2:50 PM
	3:00 PM	3:02 PM	3:15 PM	3:18 PM	3:20 PM
	3:30 PM	3:32 PM	3:45 PM	3:48 PM	3:50 PM
	4:00 PM	4:02 PM	4:15 PM	4:18 PM	4:20 PM
	4:30 PM	4:32 PM	4:45 PM	4:48 PM	4:50 PM
	5:00 PM	5:02 PM	5:15 PM	BREAK	
			5:30 PM	5:33 PM	5:35 PM
	5:45 PM	5:47 PM	6:00 PM	6:03 PM	6:05 PM
	6:15 PM	6:17 PM	6:30 PM	6:33 PM	6:35 PM
	6:45 PM	6:47 PM	7:00 PM	7:03 PM	7:05 PM
	7:15 PM	7:17 PM	7:30 PM	7:33 PM	7:35 PM
	7:45 PM	7:47 PM	8:00 PM	8:03 PM	8:05 PM
	8:15 PM	8:17 PM	8:30 PM	8:33 PM	8:35 PM
	8:45 PM	8:47 PM	9:00 PM	9:03 PM	9:05 PM
	9:15 PM	9:17 PM	9:30 PM	9:33 PM	9:35 PM
	9:45 PM	9:47 PM	10:00 PM	10:03 PM	10:05 PM
	10:15 PM	10:17 PM	10:30 PM	BREAK	
			10:45 PM	10:48 PM	10:50 PM
	11:00 PM	11:02 PM	11:15 PM	11:18 PM	11:20 PM
	11:30 PM	11:32 PM	11:45 PM	11:48 PM	11:50 PM
	12:00 AM	12:02 AM	12:15 AM		
	To All Residence Halls				

	620 SUTTER	860 SUTTER	VAN NESS	WAREHOUSE	OCTAVIA
R	7:15 AM	7:17 AM	7:27 AM	7:30 AM	7:35 AM
	7:45 AM	7:47 AM	7:57 AM	8:00 AM	8:05 AM
	8:15 AM	8:17 AM	8:27 AM	8:30 AM	8:35 AM
	8:45 AM	8:47 AM	8:57 AM	9:00 AM	9:05 AM
	9:15 AM	9:17 AM	9:27 AM	9:30 AM	9:35 AM
	9:45 AM	9:47 AM	9:57 AM	10:00 AM	10:05 AM
	10:15 AM	10:17 AM	10:27 AM	10:30 AM	10:35 AM
	10:45 AM	10:47 AM	10:57 AM	11:00 AM	11:05 AM
	11:15 AM	11:17 AM	11:27 AM	11:30 AM	11:35 AM
	11:45 AM	11:47 AM	11:57 AM	12:00 PM	12:05 PM
	12:15 PM	12:17 PM	12:27 PM	12:30 PM	12:35 PM
	12:45 PM	12:47 PM	12:57 PM	1:00 PM	1:05 PM
	1:15 PM	1:17 PM	1:27 PM	1:30 PM	1:35 PM
	1:45 PM	1:47 PM	1:57 PM	2:00 PM	2:05 PM
	2:15 PM	2:17 PM	2:27 PM	2:30 PM	2:35 PM
	2:45 PM	2:47 PM	2:57 PM	3:00 PM	3:05 PM
	3:15 PM	3:17 PM	3:27 PM	3:30 PM	3:35 PM
	3:45 PM	3:47 PM	3:57 PM	4:00 PM	4:05 PM
	4:15 PM	4:17 PM	4:27 PM	4:30 PM	4:35 PM
	4:45 PM	4:47 PM	4:57 PM	5:00 PM	5:05 PM
	5:15 PM	5:17 PM	5:27 PM	5:30 PM	5:35 PM
	5:45 PM	5:47 PM	5:57 PM	6:00 PM	6:05 PM
	6:15 PM	6:17 PM	6:27 PM	6:30 PM	6:35 PM
	6:45 PM	6:47 PM	6:57 PM	7:00 PM	7:05 PM
	7:15 PM	7:17 PM	7:27 PM	7:30 PM	7:35 PM
	7:45 PM	7:47 PM	7:57 PM	8:00 PM	8:05 PM
	8:15 PM	8:17 PM	8:27 PM	8:30 PM	8:35 PM
	8:45 PM	8:47 PM	8:57 PM	9:00 PM	9:05 PM
	9:15 PM	9:17 PM	9:27 PM	9:30 PM	9:35 PM
	9:45 PM	9:47 PM	9:57 PM	10:00 PM	10:05 PM
	10:15 PM	10:17 PM	10:27 PM	10:30 PM	10:35 PM
	10:45 PM	10:47 PM	10:57 PM	11:00 PM	11:05 PM
	11:15 PM	11:17 PM	11:27 PM	11:30 PM	11:35 PM
	11:45 PM	11:47 PM	12:00 AM	12:10 AM	
	To All Residence Halls				

WEEKEND SCHEDULE

	620 SUTTER	860 SUTTER	BRANNAN	TOWNSEND	FEDERAL	79 NM
SAT 1	7:15 AM	7:17 AM	7:27 AM	7:30 AM	7:35 AM	7:40 AM
	7:50 AM	7:52 AM	8:02 AM	8:05 AM	8:10 AM	8:15 AM
	8:25 AM	8:27 AM	8:37 AM	8:40 AM	8:45 AM	8:50 AM
	9:00 AM	9:02 AM	9:12 AM	9:15 AM	9:20 AM	9:25 AM
	9:35 AM	9:37 AM	9:47 AM	9:50 AM	9:55 AM	10:00 AM
	10:10 AM	10:12 AM	10:22 AM	10:25 AM	10:30 AM	10:35 AM
	10:45 AM	10:47 AM	10:57 AM	11:00 AM	11:05 AM	11:10 AM
	11:20 AM	11:22 AM	11:32 AM	11:35 AM	11:40 AM	11:45 AM
	11:55 AM	11:57 AM	12:07 PM	12:10 PM	12:15 PM	12:20 PM
	12:30 PM	12:32 PM	12:42 PM	12:45 PM	12:50 PM	12:55 PM
	1:05 PM	1:07 PM	1:17 PM	1:20 PM	1:25 PM	1:30 PM
	1:40 PM	1:42 PM	1:52 PM	1:55 PM	2:00 PM	2:05 PM
	2:15 PM	2:17 PM	2:27 PM	2:30 PM	2:35 PM	2:40 PM
	2:50 PM	2:52 PM	3:02 PM	3:05 PM	3:10 PM	3:15 PM
	3:25 PM	3:27 PM	3:37 PM	3:40 PM	3:45 PM	3:50 PM
	4:00 PM	4:02 PM	4:12 PM	4:15 PM	4:20 PM	4:25 PM
	4:35 PM	4:37 PM	4:47 PM	4:50 PM	4:55 PM	5:00 PM
	5:10 PM	5:12 PM	5:22 PM	5:25 PM	5:30 PM	5:35 PM
	5:45 PM	5:47 PM	5:57 PM	6:00 PM	6:05 PM	6:10 PM
	6:20 PM	6:22 PM	6:32 PM	6:35 PM	6:40 PM	6:45 PM
	6:55 PM	6:57 PM	7:07 PM	7:10 PM	7:15 PM	7:20 PM
	7:30 PM	7:32 PM	7:42 PM	7:45 PM	7:50 PM	7:55 PM
	8:05 PM	8:07 PM	8:17 PM	8:20 PM	8:25 PM	8:30 PM
	8:40 PM	8:42 PM	8:52 PM	8:55 PM	9:00 PM	9:05 PM
	9:15 PM	9:17 PM	9:27 PM	9:30 PM	9:35 PM	9:40 PM
	9:50 PM	9:52 PM	10:02 PM	10:05 PM	10:10 PM	10:15 PM
	10:25 PM	10:27 PM	10:37 PM	10:40 PM	10:45 PM	10:50 PM
	11:00 PM	11:02 PM	11:12 PM	11:15 PM	11:20 PM	11:25 PM
	11:35 PM	11:37 PM	11:47 PM	11:50 PM	11:55 PM	12:05 AM
	To All Residence Halls					

	LOMBARD	VAN NESS	WAREHOUSE	OCTAVIA	620 SUTTER	860 SUTTER
SAT 2	7:20 AM	7:23 AM	7:25 AM	7:30 AM	7:40 AM	7:42 AM
	7:55 AM	7:58 AM	8:00 AM	8:05 AM	8:15 AM	8:17 AM
	8:30 AM	8:33 AM	8:35 AM	8:40 AM	8:50 AM	8:52 AM
	9:05 AM	9:08 AM	9:10 AM	9:15 AM	9:25 AM	9:27 AM
	9:40 AM	9:43 AM	9:45 AM	9:50 AM	10:00 AM	10:02 AM
	10:15 AM	BREAK				
	10:25 AM	10:28 AM	10:30 AM	10:35 AM	10:45 AM	10:47 AM
	11:00 AM	11:03 AM	11:05 AM	11:10 AM	11:20 AM	11:22 AM
	11:35 AM	11:38 AM	11:40 AM	11:45 AM	11:55 AM	11:57 AM
	12:10 PM	12:13 PM	12:15 PM	12:20 PM	12:30 PM	12:32 PM
	12:45 PM	12:48 PM	12:50 PM	12:55 PM	1:05 PM	1:07 PM
	1:20 PM	BREAK				
	1:30 PM	1:33 PM	1:35 PM	1:40 PM	1:50 PM	1:52 PM
	2:05 PM	2:08 PM	2:10 PM	2:15 PM	2:25 PM	2:27 PM
	2:40 PM	2:43 PM	2:45 PM	2:50 PM	3:00 PM	3:02 PM
	3:15 PM	3:18 PM	3:20 PM	3:25 PM	3:35 PM	3:37 PM
	3:50 PM	3:53 PM	3:55 PM	4:00 PM	4:10 PM	4:12 PM
	4:25 PM	4:28 PM	4:30 PM	4:35 PM	4:45 PM	4:47 PM
	5:00 PM	5:03 PM	5:05 PM	5:10 PM	5:20 PM	5:22 PM
	5:35 PM	5:38 PM	5:40 PM	5:45 PM	5:55 PM	5:57 PM
	6:10 PM	6:13 PM	6:15 PM	6:20 PM	6:30 PM	6:32 PM
	6:45 PM	BREAK				
	6:55 PM	6:58 PM	7:00 PM	7:05 PM	7:15 PM	7:17 PM
	7:30 PM	7:33 PM	7:35 PM	7:40 PM	7:50 PM	7:52 PM
	8:05 PM	8:08 PM	8:10 PM	8:15 PM	8:25 PM	8:27 PM
	8:40 PM	8:43 PM	8:45 PM	8:50 PM	9:00 PM	9:02 PM
	9:15 PM	9:18 PM	9:20 PM	9:25 PM	9:35 PM	9:37 PM
	9:50 PM	9:53 PM	9:55 PM	10:00 PM	10:10 PM	10:12 PM
	10:25 PM	10:28 PM	10:30 PM	10:35 PM	10:45 PM	10:47 PM
	11:00 PM	BREAK				
	11:10 PM	11:13 PM	11:15 PM	11:20 PM	11:30 PM	11:32 PM
	11:45 PM	11:48 PM	11:50 PM	11:55 PM	12:05 AM	12:07 AM
	12:25 AM	12:28 AM	12:30 AM	To All Residence Halls		

	620 SUTTER	860 SUTTER	POST	79 NM	FEDERAL	BRANNAN	TOWNSEND
SAT 3	7:15 AM	7:17 AM	7:19 AM	7:25 AM	7:30 AM	7:34 AM	7:40 AM
	7:53 AM	7:55 AM	7:57 AM	8:05 AM	8:10 AM	8:14 AM	8:20 AM
	8:33 AM	8:35 AM	8:37 AM	8:45 AM	8:50 AM	8:54 AM	9:00 AM
	9:13 AM	9:15 AM	9:17 AM	9:25 AM	9:30 AM	9:34 AM	9:40 AM
	9:53 AM	9:55 AM	9:57 AM	10:05 AM	10:10 AM	10:14 AM	10:20 AM
	10:33 AM	10:35 AM	10:37 AM	10:45 AM	10:50 AM	10:54 AM	11:00 AM
	11:13 AM	11:15 AM	11:17 AM	11:25 AM	11:30 AM	11:34 AM	11:40 AM
	11:53 AM	11:55 AM	11:57 AM	12:05 PM	12:10 PM	12:14 PM	12:20 PM
	12:33 PM	12:35 PM	12:37 PM	12:45 PM	12:50 PM	12:54 PM	1:00 PM
	1:13 PM	1:15 PM	1:17 PM	1:25 PM	1:30 PM	1:34 PM	1:40 PM
	1:53 PM	1:55 PM	1:57 PM	2:05 PM	2:10 PM	2:14 PM	2:20 PM
	2:33 PM	2:35 PM	2:37 PM	2:45 PM	2:50 PM	2:54 PM	3:00 PM
	3:13 PM	3:15 PM	3:17 PM	3:25 PM	3:30 PM	3:34 PM	3:40 PM
	3:53 PM	3:55 PM	3:57 PM	4:05 PM	4:10 PM	4:14 PM	4:20 PM
	4:33 PM	4:35 PM	4:37 PM	4:45 PM	4:50 PM	4:54 PM	5:00 PM
	5:13 PM	5:15 PM	5:17 PM	5:25 PM	5:30 PM	5:34 PM	5:40 PM
	5:53 PM	5:55 PM	5:57 PM	6:05 PM	6:10 PM	6:14 PM	6:20 PM
	6:33 PM	6:35 PM	6:37 PM	6:45 PM	6:50 PM	6:54 PM	7:00 PM
	7:13 PM	7:15 PM	7:17 PM	7:25 PM	7:30 PM	7:34 PM	7:40 PM
	7:53 PM	7:55 PM	7:57 PM	8:05 PM	8:10 PM	8:14 PM	8:20 PM
	8:33 PM	8:35 PM	8:37 PM	8:45 PM	8:50 PM	8:54 PM	9:00 PM
	9:13 PM	9:15 PM	9:17 PM	9:25 PM	9:30 PM	9:34 PM	9:40 PM
	9:53 PM	9:55 PM	9:57 PM	10:05 PM	10:10 PM	10:14 PM	10:20 PM
	10:33 PM	10:35 PM	10:37 PM	10:45 PM	10:50 PM	10:54 PM	11:00 PM
	11:13 PM	11:15 PM	11:17 PM	11:25 PM	11:30 PM	11:34 PM	11:40 PM
	11:53 PM	11:55 PM	11:57 PM	12:05 AM	12:09 AM	12:13 AM	12:15 AM
	To All Residence Halls						

	620 SUTTER	860 SUTTER	701 CHESTNUT	HOLIDAY INN	NORTHPOINT	VAN NESS	WAREHOUSE
SAT 4	7:25 AM	7:27 AM	7:35 AM	7:37 AM	7:40 AM	7:50 AM	7:52 AM
	8:00 AM	8:02 AM	8:10 AM	8:12 AM	8:15 AM	8:25 AM	8:27 AM
	8:35 AM	8:37 AM	8:45 AM	8:47 AM	8:50 AM	BREAK	
					9:05 AM	9:15 AM	9:17 AM
	9:25 AM	9:27 AM	9:35 AM	9:37 AM	9:40 AM	9:50 AM	9:52 AM
	10:00 AM	10:02 AM	10:10 AM	10:12 AM	10:15 AM	10:25 AM	10:27 AM
	10:35 AM	10:37 AM	10:45 AM	10:47 AM	10:50 AM	11:00 AM	11:02 AM
	11:10 AM	11:12 AM	11:20 AM	11:22 AM	11:25 AM	11:35 AM	11:37 AM
	11:45 AM	11:47 AM	11:55 AM	11:57 AM	12:00 PM	12:10 PM	12:12 PM
	12:20 PM	12:22 PM	12:30 PM	12:32 PM	12:35 PM	12:45 PM	12:47 PM
	12:55 PM	12:57 PM	1:05 PM	1:07 PM	1:10 PM	BREAK	
					1:25 PM	1:35 PM	1:37 PM
	1:45 PM	1:47 PM	1:55 PM	1:57 PM	2:00 PM	2:10 PM	2:12 PM
	2:20 PM	2:22 PM	2:30 PM	2:32 PM	2:35 PM	2:45 PM	2:47 PM
	2:55 PM	2:57 PM	3:05 PM	3:07 PM	3:10 PM	3:20 PM	3:22 PM
	3:30 PM	3:32 PM	3:40 PM	3:42 PM	3:45 PM	3:55 PM	3:57 PM
	4:05 PM	4:07 PM	4:15 PM	4:17 PM	4:20 PM	4:30 PM	4:32 PM
	4:40 PM	4:42 PM	4:50 PM	4:52 PM	4:55 PM	5:05 PM	5:07 PM
	5:15 PM	5:17 PM	5:25 PM	5:27 PM	5:30 PM	BREAK	
					5:45 PM	5:55 PM	5:57 PM
	6:05 PM	6:07 PM	6:15 PM	6:17 PM	6:20 PM	6:30 PM	6:32 PM
	6:40 PM	6:42 PM	6:50 PM	6:52 PM	6:55 PM	7:05 PM	7:07 PM
	7:15 PM	7:17 PM	7:25 PM	7:27 PM	7:30 PM	7:40 PM	7:42 PM
	7:50 PM	7:52 PM	8:00 PM	8:02 PM	8:05 PM	8:15 PM	8:17 PM
	8:25 PM	8:27 PM	8:35 PM	8:37 PM	8:40 PM	8:50 PM	8:52 PM
	9:00 PM	9:02 PM	9:10 PM	9:12 PM	9:15 PM	9:25 PM	9:27 PM
	9:35 PM	9:37 PM	9:45 PM	9:47 PM	9:50 PM	10:00 PM	10:02 PM
	10:10 PM	10:12 PM	10:20 PM	10:22 PM	10:25 PM	10:35 PM	10:37 PM
	10:45 PM	10:47 PM	10:55 PM	10:57 PM	11:00 PM	BREAK	
					11:15 PM	11:25 PM	11:27 PM
	11:35 PM	11:37 PM	11:45 PM	11:47 PM	11:50 PM	BREAK	
				12:03 AM	12:05 AM	12:15 AM	12:17 AM
	To All Residence Halls						

	LOMBARD	VANNESS	WAREHOUSE	OCTAVIA	79 NM
SAT 5	7:40 AM	7:43 AM	7:45 AM	7:50 AM	8:05 AM
	8:20 AM	8:23 AM	8:25 AM	8:30 AM	8:45 AM
	9:00 AM	9:03 AM	9:05 AM	9:10 AM	9:25 AM
	9:40 AM	BREAK			
	9:55 AM	9:58 AM	10:00 AM	10:05 AM	10:20 AM
	10:35 AM	10:38 AM	10:40 AM	10:45 AM	11:00 AM
	11:15 AM	11:18 AM	11:20 AM	11:25 AM	11:40 AM
	11:55 AM	11:58 AM	12:00 PM	12:05 PM	12:20 PM
	12:35 PM	LUNCH			
	1:05 PM	1:08 PM	1:10 PM	1:15 PM	1:30 PM
	1:45 PM	1:48 PM	1:50 PM	1:55 PM	2:10 PM
	2:25 PM	BREAK			
	2:50 PM	2:53 PM	2:55 PM	3:00 PM	3:15 PM
	3:30 PM	3:33 PM	3:35 PM	3:40 PM	3:55 PM
	4:10 PM	4:13 PM	4:15 PM	4:20 PM	4:35 PM
	4:50 PM	BREAK			
	5:05 PM	5:08 PM	5:10 PM	5:15 PM	5:30 PM
	5:45 PM	5:48 PM	5:50 PM	5:55 PM	6:10 PM
	6:25 PM	6:28 PM	6:30 PM	6:35 PM	6:50 PM
	7:05 PM	7:08 PM	7:10 PM	7:15 PM	7:30 PM
	7:45 PM	LUNCH			
	8:15 PM	8:18 PM	8:20 PM	8:25 PM	8:40 PM
	8:55 PM	8:58 PM	9:00 PM	9:05 PM	9:20 PM
	9:35 PM	9:38 PM	9:40 PM	9:45 PM	10:00 PM
	10:15 PM	10:18 PM	10:20 PM	10:25 PM	10:40 PM
	10:55 PM	BREAK			
	11:10 PM	11:13 PM	11:15 PM	11:20 PM	11:35 PM
	To All Residence Halls				

	SUTTER	SUTTER	BRANNAN	TOWNSEND	FEDERAL	79 NM
SUN 1	7:15 AM	7:17 AM	7:25 AM	7:30 AM	7:35 AM	7:45 AM
	7:55 AM	7:57 AM	8:05 AM	8:10 AM	8:15 AM	8:25 AM
	8:35 AM	8:37 AM	8:45 AM	8:50 AM	8:55 AM	9:05 AM
	9:15 AM	9:17 AM	9:25 AM	9:30 AM	9:35 AM	9:45 AM
	9:55 AM	9:57 AM	10:05 AM	10:10 AM	10:15 AM	10:25 AM
	10:35 AM	10:37 AM	10:45 AM	10:50 AM	10:55 AM	11:05 AM
	11:15 AM	11:17 AM	11:25 AM	11:30 AM	11:35 AM	11:45 AM
	11:55 AM	11:57 AM	12:05 PM	12:10 PM	12:15 PM	12:25 PM
	12:35 PM	12:37 PM	12:45 PM	12:50 PM	12:55 PM	1:05 PM
	1:15 PM	1:17 PM	1:25 PM	1:30 PM	1:35 PM	1:45 PM
	1:55 PM	1:57 PM	2:05 PM	2:10 PM	2:15 PM	2:25 PM
	2:35 PM	2:37 PM	2:45 PM	2:50 PM	2:55 PM	3:05 PM
	3:15 PM	3:17 PM	3:25 PM	3:30 PM	3:35 PM	3:45 PM
	3:55 PM	3:57 PM	4:05 PM	4:10 PM	4:15 PM	4:25 PM
	4:35 PM	4:37 PM	4:45 PM	4:50 PM	4:55 PM	5:05 PM
	5:15 PM	5:17 PM	5:25 PM	5:30 PM	5:35 PM	5:45 PM
	5:55 PM	5:57 PM	6:05 PM	6:10 PM	6:15 PM	6:25 PM
	6:35 PM	6:37 PM	6:45 PM	6:50 PM	6:55 PM	7:05 PM
	7:15 PM	7:17 PM	7:25 PM	7:30 PM	7:35 PM	7:45 PM
	7:55 PM	7:57 PM	8:05 PM	8:10 PM	8:15 PM	8:25 PM
	8:35 PM	8:37 PM	8:45 PM	8:50 PM	8:55 PM	9:05 PM
	To All Residence Halls					

	HOLIDAY INN	LOMBARD	VANNESS	WAREHOUSE	OCTAVIA	SUTTER	SUTTER	
SUN 2	7:15 AM	7:30 AM	7:33 AM	7:35 AM	7:40 AM	7:50 AM	7:52 AM	
	8:05 AM	8:20 AM	8:23 AM	8:25 AM	8:30 AM	8:40 AM	8:42 AM	
	8:55 AM	9:10 AM	9:13 AM	9:15 AM	9:20 AM	9:30 AM	9:32 AM	
	9:45 AM	10:00 AM	10:03 AM	10:05 AM	10:10 AM	10:20 AM	10:22 AM	
	10:35 AM	10:50 AM	10:53 AM	10:55 AM	11:00 AM	11:10 AM	11:12 AM	
	11:25 AM	11:40 AM	11:43 AM	11:45 AM	11:50 AM	12:00 PM	12:02 PM	
	12:15 PM	12:30 PM	12:33 PM	12:35 PM	12:40 PM	12:50 PM	12:52 PM	
	1:05 PM	1:20 PM	1:23 PM	1:25 PM	1:30 PM	1:40 PM	1:42 PM	
	1:55 PM	2:10 PM	2:13 PM	2:15 PM	2:20 PM	2:30 PM	2:32 PM	
	2:45 PM	3:00 PM	3:03 PM	3:05 PM	3:10 PM	3:20 PM	3:22 PM	
	3:35 PM	3:50 PM	3:53 PM	3:55 PM	4:00 PM	4:10 PM	4:12 PM	
	4:25 PM	4:40 PM	4:43 PM	4:45 PM	4:50 PM	5:00 PM	5:02 PM	
	5:15 PM	5:30 PM	5:33 PM	5:35 PM	5:40 PM	5:50 PM	5:52 PM	
	6:05 PM	6:20 PM	6:23 PM	6:25 PM	6:30 PM	6:40 PM	6:42 PM	
	6:55 PM	7:10 PM	7:13 PM	7:15 PM	7:20 PM	7:30 PM	7:32 PM	
	7:45 PM	8:00 PM	8:03 PM	8:05 PM	8:10 PM	8:20 PM	8:22 PM	
	8:35 PM	8:50 PM	8:53 PM	8:55 PM	9:00 PM	9:10 PM	9:12 PM	To All Residence Halls

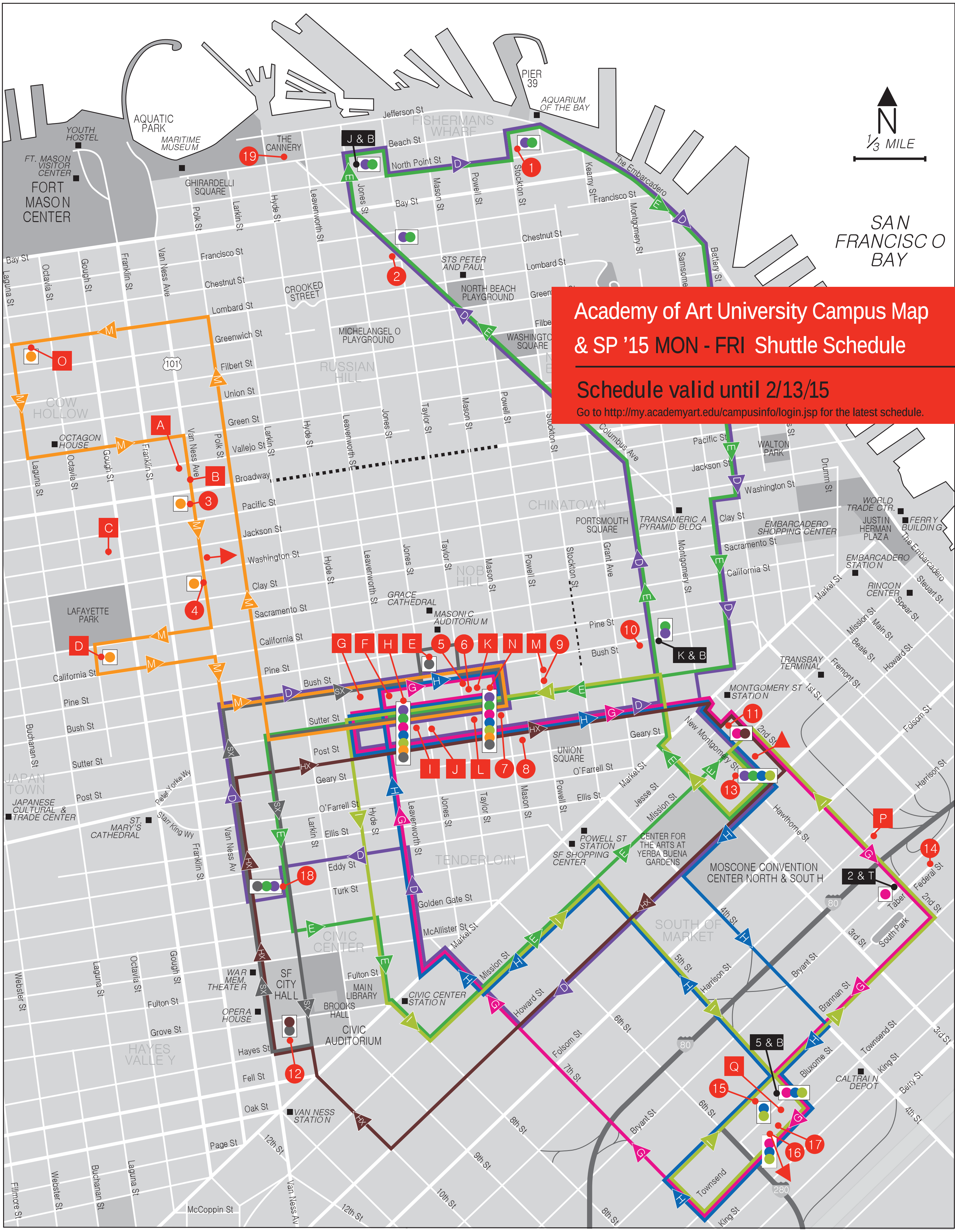
Spring 2015

Shuttle Service Routes & Schedules

Academy of Art University Campus Map & SP ’15 MON - FRI Shuttle Schedule

Schedule valid until 2/13/15

Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule.



Campus Academic & Administrative Buildings

1 **2300 STOCKTON ST. [NORTHPOINT]**
_Cybercampus & Online Support
_Fashion Classrooms
_Fashion Merchandising Workshop
_Liberal Arts Classrooms

2 **701 CHESTNUT ST.**
_Fine Art MFA Studios

3 **2151 VAN NESS AVE. [ST. BRIGID'S]**
_Auditorium
_IDS Classrooms

4 **1849 WASHINGTON ST. @ VAN NESS AVE. [THE WAREHOUSE]**
_Industrial Design
_Photo Classrooms
_Photo Studios
_Firestone Café

5 **740 TAYLOR ST.**
_Photo Classrooms
_Photo Darkrooms
_Photo Issue Room
_Snack Bar (Laszlo Lounge)

6 **688 SUTTER ST.**
_Acting

7 **625 SUTTER ST.**
_Photography
_Student Gallery
_Photo Darkrooms
_Photo Issue Room
_Photo Studios

8 **491 POST ST. [MORGAN AUDITORIUM]**
_Liberal Arts
_Art History

9 **540 POWELL ST.**
_2D Animation and Visual Effects
_Illustration
_Visual Development
_Bradley Hall

10 **410 BUSH ST.**
_Advertising
_Jewelry and Small Metal Arts
_Fine Art Sculpture Studios
_Fine Art Sculpture Classrooms
_Fine Art Sculpture Tool Room

11 **79 NEW MONTGOMERY ST. [79NM]**
_Academy Resource Center
_Admissions (Grad & Ungrad)
_Atelier
_English for Art Purposes
_Graphic Design
_Grievance
_Housing
_Human Resources
_International Student Offices
_Motion Pictures & Television Issue Room & Film Post
_Multimedia Communications
_Student Copy Center
_Student Lounge (Café Cezanne)
_Theater
_Tours

12 **150 HAYES ST.**
_Accounts Receivable
_Administration Offices
_Financial Aid
_Graduate School

13 **180 NEW MONTGOMERY ST. [180NM]**
_2D Animation & Visual Effects
_3D Animation & VisualEffects
_Art Education
_Digital Photography
_Fashion Classrooms
_Game Design
_Library
_Music Production & Sound Design for Visual Media
_Mac Lab
_MPT Editing Facilities
_Mulitmedia Language Lab
_PC Lab
_Security
_Student ID Distribution
_Student Lounge (Café Dior)
_Study Hall/Writing Lab
_Web Design and New Media

14 **60 FEDERAL ST.**
_Fine Art
_Foundations Classrooms

15 **601 BRANNAN ST.**
_Architecture
_Interior Architecture & Design
_Landscape Architecture
_Usability Lab
_Wood Shop
_Student Lounge

16 **466 TOWNSEND ST.**
_MPT
_Foundations
_Acting Classrooms
_MPT Studios
_Architecure Studio Classrooms

17 **460 TOWNSEND ST.**
_Interior Architecture & Design
_Classrooms
_Landscape Architecture Classrooms

18 **625 POLK ST.**
_Fashion
_Cafe Dior & Dior Express

19 **2801 LEAVENWORTH ST. [THE CANNERY]**
_Athletics
_Campus Life/Activities
_Fine Art Sculpture
_Foundations Classrooms

20 **360 SWIFT AVE.* SOUTH SAN FRANCISCO**
(Not shown on this map)
_Foundry

Utrecht Art Supplies

_Academy of Art @ Townsend 466 Townsend Street, 3rd Fl.
_1930 Van Ness Ave.
_149 New Montgomery St.
_Academy of Art @ Federal 60 Federal Street, 4th Fl.

Campus Housing

A **2211 VAN NESS AVE.**
_Ansel Adams Apartments

B **2209 VAN NESS AVE.**
_Mary Cassatt House

C **1900 JACKSON ST.**
_John Singer Sargent Graduate Apartments

D **1916 OCTAVIA ST.**
_Coco Chanel House

E **1055 PINE ST.**
_Auguste Rodin Hall
_Cafe Rodin

F **1080 BUSH ST.**
_Leonardo da Vinci Apartments

G **1153 BUSH ST.**
_Frank Lloyd Wright House

H **860 SUTTER ST.**
_International House
_I House Cafe

I **825 SUTTER ST.**
_The Commodore Hall

J **736 JONES ST.**
_Johannes Vermeer Apartments

K **680 SUTTER ST.**
_Edgar Degas Apartments

L **655 SUTTER ST.**
_Howard Brodie Hall
_Campus Life & Leadership
_Urban Knights Art Café

M **560 POWELL ST.**
_Fritz Lang Apartments

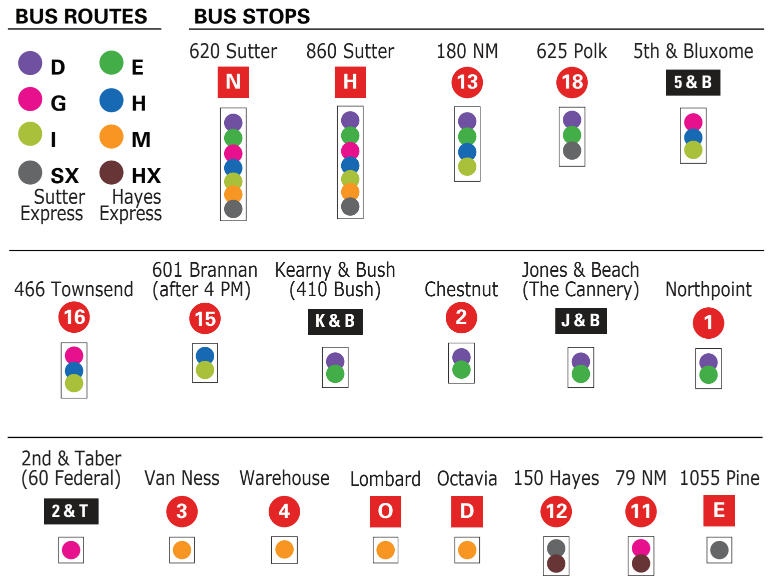
N **620 SUTTER ST.**
_Clara Gil Stephens Hall
_620 Sutter Cafe
_Dance Studio
_Fitness Area
_Swimming Pool

O **1727 LOMBARD ST.**
_Star Hall

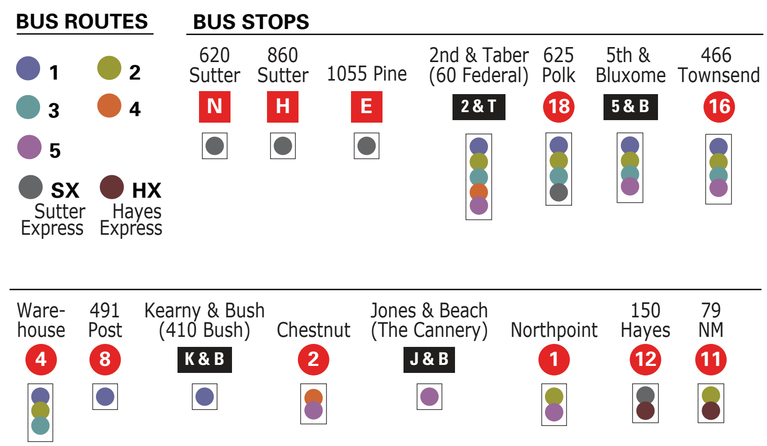
P **575 HARRISON ST.**
_Halfmoon Apartments

Q **168 BLUXOME ST.**
_The Bluxome Lofts

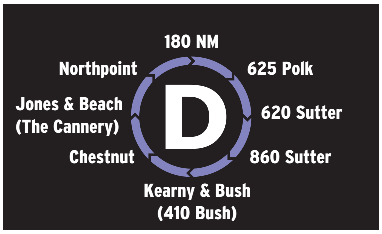
Monday - Friday



Monday - Friday Express (see pages 6 & 7 for routes and schedules)



Monday - Friday*



D SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING / EARLY AFTERNOON							
180 NM	7:47 AM	8:43 AM	9:38 AM		10:50 AM	11:53 AM	
625 Polk	7:55 AM	8:50 AM	9:46 AM		11:00 AM	12:05 PM	
620 Sutter	8:05 AM	9:00 AM	9:55 AM		11:10 AM	12:18 PM	1:23 PM
860 Sutter	8:07 AM	9:02 AM	9:57 AM		11:12 AM		1:25 PM
Kearny & Bush	8:10 AM	9:05 AM	10:00 AM		11:16 AM		1:29 PM
Chestnut	8:17 AM	9:13 AM	10:08 AM		11:26 AM		1:38 PM
Jones & Beach	8:19 AM	9:15 AM	10:10 AM		11:29 AM		1:40 PM
Northpoint	8:25 AM	9:20 AM	10:15 AM	10:30 AM	11:33 AM		1:44 PM

D SHUTTLE - BUS #2 MONDAY - FRIDAY MORNING / EARLY AFTERNOON							
180 NM	7:22 AM	8:17 AM	9:13 AM		10:20 AM	11:25 AM	12:25 PM
625 Polk	7:30 AM	8:25 AM	9:21 AM		10:30 AM	11:35 AM	12:35 PM
620 Sutter	7:39 AM	8:35 AM	9:30 AM		10:40 AM	11:45 AM	12:45 PM
860 Sutter	7:41 AM	8:37 AM	9:32 AM		10:42 AM	11:47 AM	12:47 PM
Kearny & Bush	7:45 AM	8:40 AM	9:35 AM		10:46 AM	11:51 AM	12:51 PM
Chestnut	7:53 AM	8:48 AM	9:45 AM		10:55 AM	11:59 AM	12:59 PM
Jones & Beach	7:55 AM	8:50 AM	9:47 AM		10:57 AM	12:00 PM	1:00 PM
Northpoint	8:00 AM	8:55 AM	9:50 AM	10:05 AM	11:05 AM	12:05 PM	1:05 PM

D SHUTTLE - BUS #1 MONDAY - FRIDAY AFTERNOON / EARLY EVENING							
180 NM	2:00 PM		3:23 PM	4:25 PM	5:30 PM	6:35 PM	
625 Polk	2:10 PM		3:33 PM	4:35 PM	5:40 PM	6:45 PM	
620 Sutter	2:20 PM	2:40 PM	3:43 PM	4:45 PM	5:50 PM	6:55 PM	7:10 PM
860 Sutter		2:42 PM	3:45 PM	4:47 PM	5:52 PM		7:12 PM
Kearny & Bush		2:46 PM	3:49 PM	4:50 PM	5:55 PM		7:15 PM
Chestnut		2:55 PM	3:58 PM	5:00 PM	6:05 PM		7:23 PM
Jones & Beach		2:59 PM	4:00 PM	5:05 PM	6:07 PM		7:25 PM
Northpoint		3:03 PM	4:05 PM	5:10 PM	6:15 PM		7:29 PM

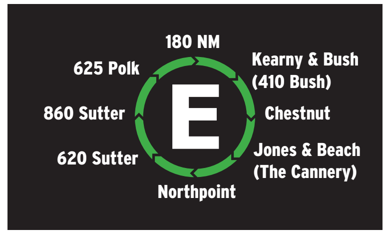
D SHUTTLE - BUS #2 MON - FRI AFTERNOON /EARLY EVENING					
180 NM	1:25 PM		2:40 PM	3:45 PM	4:50 PM
625 Polk	1:35 PM		2:55 PM	3:55 PM	5:00 PM
620 Sutter	1:45 PM		3:05 PM	4:05 PM	5:10 PM
860 Sutter	1:47 PM		3:06 PM	4:07 PM	5:12 PM
Kearny & Bush	1:51 PM		3:10 PM	4:11 PM	5:16 PM
Chestnut	1:58 PM		3:18 PM	4:20 PM	5:25 PM
Jones & Beach	2:00 PM		3:20 PM	4:22 PM	5:27 PM
Northpoint	2:05 PM	2:20 PM	3:25 PM	4:30 PM	5:35 PM

D SHUTTLE - BUS #1 MONDAY - FRIDAY EVENING						
180 NM	7:59 PM		9:30 PM		10:38 PM	
625 Polk	8:09 PM		9:38 PM		10:46 PM	TO
620 Sutter	8:19 PM		9:46 PM		10:55 PM	ANY
860 Sutter	8:20 PM		9:48 PM		10:56 PM	AAU
Kearny & Bush	8:23 PM		9:52 PM		10:59 PM	BUILDING
Chestnut	8:30 PM		10:00 PM		11:06 PM	
Jones & Beach	8:32 PM	9:07 PM	10:02 PM	10:17 PM	11:07 PM	
Northpoint		9:12 PM		10:20 PM	11:10 PM	

D SHUTTLE - BUS #2 MONDAY - FRIDAY EVENING				
180 NM	5:55 PM	7:05 PM		
625 Polk	6:07 PM	7:15 PM		TO
620 Sutter	6:20 PM	7:25 PM	7:40 PM	ANY
860 Sutter	6:22 PM		7:42 PM	AAU
Kearny & Bush	6:26 PM		7:45 PM	BUILDING
Chestnut	6:36 PM		7:55 PM	
Jones & Beach	6:38 PM		7:57 PM	
Northpoint	6:45 PM		8:00 PM	

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Monday - Friday*



E SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING / EARLY AFTERNOON							
180 NM		8:00 AM	9:00 AM	9:55 AM		11:13 AM	12:15 PM
Kearny & Bush		8:04 AM	9:04 AM	9:59 AM		11:17 AM	12:19 PM
Chestnut		8:11 AM	9:11 AM	10:06 AM		11:27 AM	12:29 PM
Jones & Beach		8:13 AM	9:13 AM	10:08 AM		11:30 AM	12:33 PM
Northpoint		8:18 AM	9:18 AM	10:12 AM	10:30 AM	11:35 AM	12:40 PM
620 Sutter	7:40 AM	8:36 AM	9:36 AM		10:48 AM	11:55 AM	1:00 PM
860 Sutter	7:42 AM	8:38 AM	9:38 AM		10:50 AM	11:57 AM	1:02 PM
625 Polk	7:47 AM	8:43 AM	9:43 AM		10:57 AM	12:02 PM	1:08 PM

E SHUTTLE - BUS #2 MONDAY - FRIDAY MORNING / AFTERNOON							
180 NM	7:33 AM	8:28 AM	9:35 AM		10:49 AM	11:50 PM	12:53 PM
Kearny & Bush	7:36 AM	8:33 AM	9:39 PM		10:53 AM	11:54 AM	12:57 PM
Chestnut	7:44 AM	8:40 AM	9:48 PM		11:03 AM	12:03 AM	1:05 PM
Jones & Beach	7:45 AM	8:42 AM	9:50 PM		11:05 AM	12:05 AM	1:07 PM
Northpoint	7:50 AM	8:50 AM	9:54 PM	10:10 AM	11:10 AM	12:10 PM	1:15 PM
620 Sutter	8:08 AM	9:08 AM		10:28 AM	11:30 AM	12:30 PM	1:35 PM
860 Sutter	8:10 AM	9:10 AM		10:30 AM	11:32 AM	12:32 PM	1:37 PM
625 Polk	8:15 AM	9:18 AM		10:35 AM	11:37 AM	12:38 PM	1:43 PM

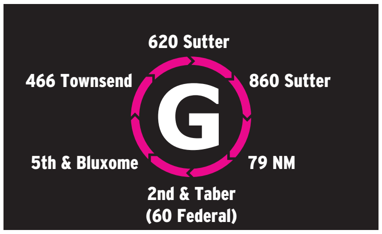
E SHUTTLE - BUS #1 MONDAY - FRIDAY AFTERNOON / EARLY EVENING							
180 NM	1:25 PM	2:26 PM		3:40 PM	4:50 PM	5:55 PM	
Kearny & Bush	1:29 PM	2:30 PM		3:44 PM	4:54 PM	5:59 PM	
Chestnut	1:38 PM	2:38 PM		3:54 PM	5:04 PM	6:10 PM	
Jones & Beach	1:40 PM	2:40 PM	2:55 PM	3:56 PM	5:06 PM	6:13 PM	6:35 PM
Northpoint	1:45 PM		3:00 PM	4:05 PM	5:10 PM		6:40 PM
620 Sutter	2:05 PM		3:18 PM	4:25 PM	5:30 PM		7:00 PM
860 Sutter	2:06 PM		3:20 PM	4:27 PM	5:32 PM		7:02 PM
625 Polk	2:12 PM		3:25 PM	4:35 PM	5:40 PM		7:10 PM

E SHUTTLE - BUS #2 MONDAY - FRIDAY AFTERNOON / EARLY EVENING								
180 NM	2:00 PM		3:15 PM	4:20 PM	5:23 PM		6:50 PM	7:50 PM
Kearny & Bush	2:04 PM		3:19 PM	4:24 PM	5:27 PM		6:54 PM	7:54 PM
Chestnut	2:13 PM		3:28 PM	4:33 PM	5:36 PM		7:02 PM	8:03 PM
Jones & Beach	2:15 PM	2:30 PM	3:30 PM	4:35 PM	5:38 PM		7:05 PM	8:05 PM
Northpoint		2:35 PM	3:35 PM	4:40 PM	5:43 PM		7:08 PM	8:09 PM
620 Sutter		2:53 PM	3:55 PM	5:00 PM	6:03 PM	6:20 PM	7:28 PM	TO ANY
860 Sutter		2:55 PM	3:57 PM	5:02 PM		6:22 PM	7:30 PM	AAU
625 Polk		3:00 PM	4:05 PM	5:07 PM		6:35 PM	7:35 PM	BUILDING

E SHUTTLE - BUS #1 MONDAY - FRIDAY EVENING						
180 NM	7:25 PM		9:00 PM	9:53 PM	10:50 PM	11:05 PM
Kearny & Bush	7:29 PM		9:04 PM	9:57 PM		11:08 PM
Chestnut	7:38 PM		9:13 PM	10:05 PM		11:15 PM
Jones & Beach	7:40 PM	8:15 PM	9:15 PM	10:07 PM		11:17 PM
Northpoint		8:20 PM	9:19 PM	10:10 PM		11:20 PM
620 Sutter		8:35 PM	9:34 PM	10:25 PM		TO ANY
860 Sutter		8:37 PM	9:35 PM	10:27 PM		AAU
625 Polk		8:45 PM	9:40 PM	10:35 PM		BUILDING

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Monday - Friday*



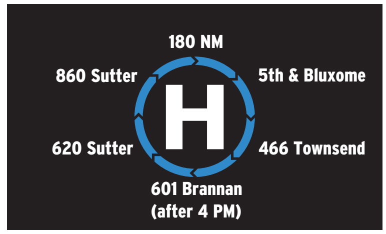
G SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING								
620 Sutter	7:30 AM	8:03 AM	8:37 AM	9:10 AM	9:45 AM		11:25 AM	11:56 AM
860 Sutter	7:32 AM	8:05 AM	8:39 AM	9:12 AM	9:46 AM		11:26 AM	11:58 AM
78 NM	7:42 AM	8:15 AM					11:36 AM	
2nd & Taber	7:45 AM	8:18 AM	8:52 AM	9:25 AM	10:00 AM	11:05 AM	11:40 AM	12:12 PM
5th & Bluxome	7:49 AM	8:22 AM	8:56 AM	9:29 AM	10:04 AM	11:10 AM	11:44 AM	12:16 PM
466 Townsend	7:52 AM	8:25 AM	8:59 AM	9:32 AM	10:05 AM	11:13 AM	11:46 AM	12:20 PM

G SHUTTLE - BUS #1 MONDAY - FRIDAY LATE MORNING / AFTERNOON								
620 Sutter	12:32 PM		1:28 PM	2:05 PM	2:42 PM	3:16 PM	3:47 PM	
860 Sutter	12:35 PM		1:30 PM	2:07 PM	2:45 PM	3:18 PM	3:48 PM	
78 NM					2:57 PM	3:28 PM		
2nd & Taber	12:49 PM		1:45 PM	2:22 PM	3:00 PM	3:32 PM	4:01 PM	
5th & Bluxome	12:53 PM	1:15 PM	1:50 PM	2:26 PM	3:04 PM	3:36 PM	4:05 PM	4:30 PM
466 Townsend	12:55 PM	1:17 PM	1:53 PM	2:30 PM	3:06 PM	3:37 PM	4:07 PM	4:32 PM

G SHUTTLE - BUS #1 MONDAY - FRIDAY LATE AFTERNOON / EARLY EVENING								
620 Sutter	4:45 PM	5:20 PM	5:52 PM	6:25 PM	6:55 PM		9:47 PM	
860 Sutter	4:47 PM	5:22 PM	5:55 PM	6:27 PM	6:57 PM		9:49 PM	TO
78 NM				6:37 PM				ANY
2nd & Taber	5:00 PM	5:35 PM	6:08 PM	6:40 PM	7:10 PM		10:02 PM	AAU
5th & Bluxome	5:05 PM	5:40 PM	6:12 PM	6:43 PM	7:14 PM	9:32 PM	10:05 PM	BUILDING
466 Townsend	5:07 PM	5:42 PM	6:15 PM	6:45 PM	7:15 PM	9:37 PM	10:07 PM	

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Monday - Friday*



H SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING							
180 NM		7:47 AM	8:30 AM		9:30 AM	10:14 AM	10:58 AM
5th & Bluxome	7:15 AM	7:57 AM	8:40 AM		9:40 AM	10:24 AM	11:08 AM
466 Townsend	7:17 AM	8:00 AM	8:45 AM	9:00 AM	9:45 AM	10:29 AM	11:13 AM
601 Brannan							
620 Sutter	7:32 AM	8:14 AM		9:14 AM	9:58 AM	10:43 AM	11:28 AM
860 Sutter	7:34 AM	8:16 AM		9:16 AM	10:00 AM	10:45 AM	11:30 AM

H SHUTTLE - BUS #2 MONDAY - FRIDAY MORNING								
180 NM		8:05 AM	8:47 AM		9:45 AM	10:30 AM	11:15 AM	12:00 PM
5th & Bluxome	7:35 AM	8:15 AM	8:57 AM		9:55 AM	10:40 AM	11:27 AM	12:10 PM
466 Townsend	7:37 AM	8:18 AM	9:00 AM	9:15 AM	10:00 AM	10:45 AM	11:30 AM	12:15 PM
601 Brannan								
620 Sutter	7:50 AM	8:32 AM		9:29 AM	10:14 AM	10:59 AM	11:44 AM	
860 Sutter	7:52 AM	8:34 AM		9:31 AM	10:16 AM	11:01 AM	11:46 AM	

H SHUTTLE - BUS #1 MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON								
180 NM	11:44 AM	12:20 PM	1:00 PM	1:45 PM		2:45 PM	3:30 PM	4:15 PM
5th & Bluxome	11:54 AM	12:30 PM	1:10 PM	1:55 PM		2:55 PM	3:40 PM	4:25 PM
466 Townsend	11:55 AM	12:32 PM	1:15 PM	2:00 PM	2:15 PM	3:00 PM	3:45 PM	4:30 PM
601 Brannan								
620 Sutter	12:08 PM	12:44 PM	1:29 PM		2:29 PM	3:14 PM	3:59 PM	4:45 PM
860 Sutter	12:10 PM	12:46 PM	1:31 PM		2:31 PM	3:16 PM	4:01 PM	4:47 PM

H SHUTTLE - BUS #2 MONDAY - FRIDAY AFTERNOON							
180 NM		1:32 PM	2:10 PM		3:05 PM	3:45 PM	4:30 PM
5th & Bluxome	1:05 PM	1:42 PM	2:20 PM		3:15 PM	3:55 PM	4:40 PM
466 Townsend	1:07 PM	1:44 PM	2:22 PM	2:37 PM	3:17 PM	3:58 PM	4:45 PM
601 Brannan							
620 Sutter	1:20 PM	1:55 PM		2:50 PM	3:30 PM	4:12 PM	5:00 PM
860 Sutter	1:22 PM	1:57 PM		2:52 PM	3:32 PM	4:16 PM	5:02 PM

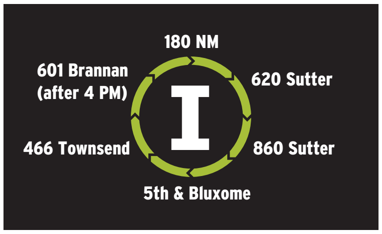
H SHUTTLE - BUS #1 MONDAY - FRIDAY LATE AFTERNOON / EARLY EVENING							
180 NM	5:00 PM	5:44 PM	6:40 PM	7:27 PM		9:00 PM	
5th & Bluxome	5:10 PM	5:54 PM	6:50 PM	7:37 PM		9:10 PM	
466 Townsend	5:15 PM	6:07 PM	6:55 PM	7:40 PM	8:30 PM	9:15 PM	9:30 PM
601 Brannan		6:10 PM	6:59 PM		8:33 PM		9:34 PM
620 Sutter	5:28 PM	6:25 PM	7:12 PM		8:45 PM		9:45 PM
860 Sutter	5:30 PM	6:27 PM	7:14 PM		8:48 PM		9:47 PM

H SHUTTLE - BUS #2 MONDAY - FRIDAY EVENING							
180 NM	5:17 PM		6:15 PM	7:05 PM	7:50 PM	8:27 PM	TO
5th & Bluxome	5:27 PM		6:30 PM	7:15 PM	8:00 PM	8:37 PM	ANY
466 Townsend	5:30 PM	5:45 PM	6:33 PM	7:20 PM	8:02 PM	8:40 PM	AAU
601 Brannan			6:37 PM	7:23 PM	8:05 PM		BUILDING
620 Sutter		6:00 PM	6:50 PM	7:35 PM	8:15 PM		ASK
860 Sutter		6:02 PM	6:52 PM	7:37 PM	8:17 PM		DRIVER

H SHUTTLE - BUS #1 MONDAY - FRIDAY EVENING				
180 NM	9:57 PM	10:42 PM		TO
5th & Bluxome	10:07 PM	10:45 PM		ANY
466 Townsend	10:10 PM	10:50 PM	11:05 PM	AAU
601 Brannan	10:20 PM		11:09 PM	BUILDING
620 Sutter	10:30 PM			ASK
860 Sutter	10:32 PM			DRIVER

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Monday - Friday*



I SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING								
180 NM		7:32 AM	8:14 AM	9:02 AM		10:04 AM	10:48 AM	11:33 AM
620 Sutter		7:45 AM	8:28 AM	9:16 AM		10:18 AM	11:00 AM	11:45 AM
860 Sutter		7:47 AM	8:30 AM	9:18 AM		10:20 AM	11:02 AM	11:47 AM
5th & Bluxome	7:15 AM	7:58 AM	8:43 AM	9:32 AM		10:32 AM	11:15 AM	12:00 PM
466 Townsend	7:18 AM	8:00 AM	8:48 AM	9:35 AM	9:50 AM	10:35 AM	11:20 AM	12:05 PM
601 Brannan								

I SHUTTLE - BUS #2 MONDAY - FRIDAY MONDAY - FRIDAY MORNING							
180 NM		7:50 AM	8:28 AM	9:09 AM		10:04 AM	10:55 AM
620 Sutter		8:02 AM	8:38 AM	9:23 AM		10:17 AM	11:08 AM
860 Sutter		8:05 AM	8:40 AM	9:25 AM		10:20 AM	11:11 AM
5th & Bluxome	7:35 AM	8:16 AM	8:52 AM	9:33 AM		10:32 AM	11:25 AM
466 Townsend	7:38 AM	8:18 AM	8:55 AM	9:35 AM	9:50 AM	10:40 AM	11:29 AM
601 Brannan							

I SHUTTLE - BUS #1 MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON								
180 NM	12:17 PM		1:12 PM	1:50 PM	2:33 PM	3:17 PM	4:00 PM	4:50 PM
620 Sutter	12:27 PM		1:22 PM	2:03 PM	2:45 PM	3:30 PM	4:15 PM	5:03 PM
860 Sutter	12:30 PM		1:24 PM	2:05 PM	2:47 PM	3:32 PM	4:17 PM	5:05 PM
5th & Bluxome	12:40 PM		1:34 PM	2:15 PM	3:00 PM	3:42 PM	4:30 PM	5:18 PM
466 Townsend	12:45 PM	1:00 PM	1:37 PM	2:20 PM	3:03 PM	3:45 PM	4:35 PM	5:22 PM
601 Brannan								

I SHUTTLE - BUS #2 MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON								
180 NM	11:40 AM		11:15 PM	1:53 PM		2:49 PM	3:25 PM	4:03 PM
620 Sutter	11:53 AM		1:25 PM	2:05 PM		3:00 PM	3:35 PM	4:15 PM
860 Sutter	11:55 AM		1:27 PM	2:07 PM		3:02 PM	3:37 PM	4:17 PM
5th & Bluxome	12:05 PM	1:02 PM	1:37 PM	2:17 PM		3:12 PM	3:47 PM	4:27 PM
466 Townsend	12:07 PM	1:04 PM	1:40 PM	2:20 PM	2:35 PM	3:15 PM	3:50 PM	4:30 PM
601 Brannan								

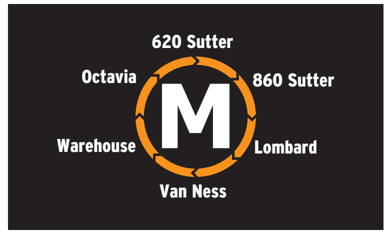
I SHUTTLE - BUS #1 MONDAY - FRIDAY LATE AFTERNOON / EVENING							
180 NM	5:35 PM	6:20 PM		7:15 PM	7:55 PM		9:13 PM
620 Sutter	5:48 PM	6:30 PM		7:25 PM	8:05 PM		9:23 PM
860 Sutter	5:50 PM	6:32 PM		7:27 PM	8:07 PM		9:25 PM
5th & Bluxome	6:00 PM	6:42 PM		7:37 PM	8:17 PM		9:35 PM
466 Townsend	6:03 PM	6:45 PM	7:00 PM	7:40 PM	8:20 PM	9:00 PM	9:40 PM
601 Brannan	6:07 PM		7:03 PM	7:44 PM		9:03 PM	9:44 PM

I SHUTTLE - BUS #2 MON - FRI LATE AFTERNOON / EARLY EVENING							
180 NM	4:44 PM	5:28 PM	6:17 PM	6:55 PM		7:50 PM	TO
620 Sutter	4:55 PM	5:40 PM	6:27 PM	7:05 PM		8:00 PM	ANY
860 Sutter	4:57 PM	5:42 PM	6:29 PM	7:07 PM		8:02 PM	AAU
5th & Bluxome	5:10 PM	5:55 PM	6:39 PM	7:17 PM		8:12 PM	BUILDING
466 Townsend	5:15 PM	6:00 PM	6:42 PM	7:20 PM	7:35 PM	8:15 PM	ASK
601 Brannan		6:04 PM	6:45 PM		7:38 PM		DRIVER

I SHUTTLE - BUS #1 MONDAY - FRIDAY EVENING				
180 NM	9:55 PM	10:34 PM		TO
620 Sutter	10:05 PM	10:44 PM		ANY
860 Sutter	10:07 PM	10:46 PM		AAU
5th & Bluxome	10:17 PM	10:56 PM	11:10 PM	BUILDING
466 Townsend	10:20 PM		11:12 PM	ASK
601 Brannan	10:24 PM		11:15 PM	DRIVER

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Monday - Friday*



M SHUTTLE - BUS #1 MONDAY - FRIDAY MORNING								
620 Sutter		7:20 AM	8:00 AM	8:40 AM	9:20 AM		10:18 AM	10:58 AM
860 Sutter		7:22 AM	8:02 AM	8:42 AM	9:22 AM		10:20 AM	11:00 AM
Lombard	7:02 AM	7:42 AM	8:22 AM	9:02 AM	9:42 AM	10:00 AM	10:40 AM	11:22 AM
Van Ness	7:05 AM	7:45 AM	8:25 AM	9:05 AM		10:03 AM	10:43 AM	11:25 AM
Warehouse	7:06 AM	7:46 AM	8:26 AM	9:06 AM		10:04 AM	10:44 AM	11:27 AM
Octavia	7:10 AM	7:50 AM	8:30 AM	9:10 AM		10:08 AM	10:48 AM	11:31 AM

M SHUTTLE - BUS #2 MONDAY - FRIDAY MORNING							
620 Sutter		7:40 AM	8:18 AM	8:58 AM	9:38 AM		10:34 AM
860 Sutter		7:42 AM	8:20 AM	9:00 AM	9:40 AM		10:36 AM
Lombard	7:22 AM	8:00 AM	8:40 AM	9:20 AM	10:00 AM	10:15 PM	10:56 AM
Van Ness	7:25 AM	8:03 AM	8:43 AM	9:23 AM		10:18 PM	11:00 AM
Warehouse	7:26 AM	8:04 AM	8:44 AM	9:24 AM		10:20 PM	11:01 AM
Octavia	7:30 AM	8:08 AM	8:48 AM	9:28 AM		10:24 PM	11:05 AM

M SHUTTLE - BUS #1 MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON								
620 Sutter	11:40 AM		12:53 PM	1:33 PM		2:29 PM	2:29 PM	3:09 PM
860 Sutter	11:42 AM		12:55 PM	1:35 PM		2:31 PM	2:31 PM	3:11 PM
Lombard	12:00 PM	12:35 PM	1:15 PM	1:55 PM	2:10 PM	2:51 PM	2:51 PM	3:30 PM
Van Ness		12:38 PM	1:18 PM		2:13 PM	2:55 PM	2:55 PM	3:34 PM
Warehouse		12:39 PM	1:19 PM		2:15 PM	2:56 PM	2:56 PM	3:35 PM
Octavia		12:43 PM	1:23 PM		2:19 PM	3:00 PM	3:00 PM	3:39 PM

M SHUTTLE - BUS #2 MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON							
620 Sutter	11:15 AM		12:24 PM	1:10 PM	1:52 PM		2:49 PM
860 Sutter	11:17 AM		12:26 PM	1:12 PM	1:54 PM		2:51 PM
Lombard	11:35 AM	12:05 PM	12:48 PM	1:33 PM	2:12 PM	2:30 PM	3:10 PM
Van Ness		12:08 PM	12:51 PM	1:36 PM		2:33 PM	3:13 PM
Warehouse		12:10 PM	12:53 PM	1:38 PM		2:35 PM	3:15 PM
Octavia		12:14 PM	12:58 PM	1:42 PM		2:39 PM	3:19 PM

M SHUTTLE - BUS #1 MONDAY - FRIDAY AFTERNOON / EARLY EVENING								
620 Sutter	3:48 PM	4:30 PM	5:12 PM	5:54 PM		6:48 PM	7:30 PM	
860 Sutter	3:50 PM	4:32 PM	5:14 PM	5:56 PM		6:50 PM	7:32 PM	
Lombard	4:10 PM	4:52 PM	5:34 PM	6:16 PM	6:30 PM	7:10 PM	7:52 PM	8:30 PM
Van Ness	4:13 PM	4:55 PM	5:37 PM		6:33 PM	7:13 PM		8:33 PM
Warehouse	4:15 PM	4:57 PM	5:39 PM		6:35 PM	7:15 PM		8:34 PM
Octavia	4:20 PM	5:02 PM	5:44 PM		6:40 PM	7:20 PM		8:38 PM

M SHUTTLE - BUS #2 MONDAY - FRIDAY AFTERNOON / EARLY EVENING						
620 Sutter	3:29 PM	4:10 PM	4:50 PM	5:30 PM		6:25 PM
860 Sutter	3:31 PM	4:12 PM	4:52 PM	5:32 PM		6:27 PM
Lombard	3:50 PM	4:32 PM	5:12 PM	5:50 PM	6:05 PM	6:47 PM
Van Ness	3:54 PM	4:35 PM	5:15 PM		6:08 PM	6:50 PM
Warehouse	3:55 PM	4:37 PM	5:17 PM		6:10 PM	6:52 PM
Octavia	4:00 PM	4:42 PM	5:22 PM		6:15 PM	6:56 PM

M SHUTTLE - BUS #1 MONDAY - FRIDAY EVENING						
620 Sutter	8:48 PM	9:25 PM		10:18 PM	11:00 PM	TO
860 Sutter	8:50 PM	9:27 PM		10:20 PM	11:02 PM	ANY
Lombard	9:05 PM	9:45 PM	10:00 PM	10:35 PM	11:17 PM	AAU
Van Ness	9:08 PM		10:03 PM	10:39 PM	11:20 PM	BUILDING
Warehouse	9:10 PM		10:04 PM	10:40 PM	11:21 PM	ASK
Octavia	9:15 PM		10:09 PM	10:45 PM		DRIVER

M SHUTTLE - BUS #2 MONDAY - FRIDAY EVENING						
620 Sutter	7:05 PM	7:45 PM		9:00 PM		10:03 PM
860 Sutter	7:07 PM	7:47 PM		9:10 PM		10:05 PM
Lombard	7:27 PM	8:05 PM	8:40 PM	9:30 PM	9:45 PM	TO
Van Ness	7:30 PM		8:43 PM		9:48 PM	ANY
Warehouse	7:32 PM		8:45 PM		9:50 PM	AAU
Octavia	7:36 PM		8:50 PM		9:54 PM	BUILDING

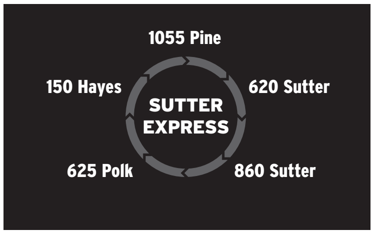
*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Academy of Art University Campus Map & SP '15 M-F EXPRESS Shuttle Schedule

Schedule valid until 2/13/15

Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule.

Monday - Friday*



SUTTER EXPRESS MONDAY - FRIDAY MORNING								
1055 Pine	7:40 AM	8:05 AM	8:30 AM	8:55 AM	9:20 AM	9:45 AM	10:10 AM	
620 Sutter	7:42 AM	8:08 AM	8:33 AM	8:58 AM	9:23 AM	9:48 AM	10:13 AM	10:28 AM
860 Sutter	7:45 AM	8:10 AM	8:35 AM	9:00 AM	9:25 AM	9:50 AM		10:30 AM
625 Polk	7:50 AM		8:40 AM	9:05 AM	9:30 AM	9:55 AM		10:35 AM
150 Hayes	7:55 AM	8:20 AM	8:45 AM	9:10 AM	9:35 AM	10:00 AM		10:40 AM

SUTTER EXPRESS MONDAY - FRIDAY LATE MORNING / EARLY AFTERNOON							
1055 Pine	10:50 AM	11:15 AM	11:40 AM	12:05 PM		1:05 PM	1:30 PM
620 Sutter	10:53 AM	11:18 AM	11:43 AM	12:08 PM	12:43 PM	1:08 PM	1:33 PM
860 Sutter	10:55 AM	11:20 AM	11:45 AM		12:45 PM	1:10 PM	1:35 PM
625 Polk	11:00 AM	11:25 AM	11:50 AM		12:50 PM	1:15 PM	1:40 PM
150 Hayes	11:05 AM	11:30 AM	11:55 AM		12:55 PM	1:20 PM	1:45 PM

SUTTER EXPRESS MONDAY - FRIDAY AFTERNOON							
1055 Pine	1:55 PM	2:20 PM		3:00 PM	3:25 PM	3:50 PM	4:15 PM
620 Sutter	1:58 PM	2:23 PM	2:38 PM	3:03 PM	3:28 PM	3:53 PM	4:18 PM
860 Sutter	2:00 PM		2:40 PM	3:05 PM	3:30 PM	3:55 PM	4:20 PM
625 Polk	2:05 PM		2:45 PM	3:10 PM	3:35 PM	4:00 PM	4:25 PM
150 Hayes	2:10 PM		2:50 PM	3:15 PM	3:40 PM	4:05 PM	4:30 PM

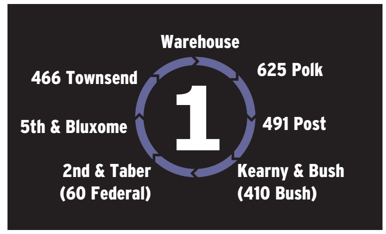
HAYES EXPRESS #1 MONDAY - FRIDAY MORNING								
79 NM	7:35 AM	8:05 AM	8:35 AM	9:05 AM	9:35 AM	10:05 AM	10:35 AM	11:05 AM
150 Hayes	7:48 AM	8:18 AM	8:48 AM	9:18 AM	9:48 AM	10:18 AM	10:48 AM	11:18 AM

HAYES EXPRESS #2 MONDAY - FRIDAY AFTERNOON								
79 NM	11:35 AM	12:05 PM	12:35 PM	1:05 PM	1:35 PM	2:05 PM	2:35 PM	3:05 PM
150 Hayes	11:48 AM	12:18 PM	12:48 PM	1:18 PM	1:48 PM	2:18 PM	2:48 PM	3:18 PM

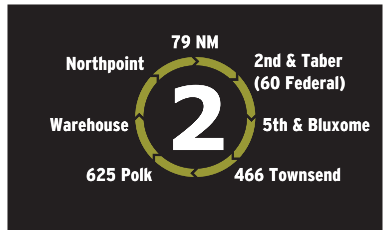
HAYES EXPRESS #1 MON - FRI LATE AFTERNOON / EARLY EVENING						
79 NM	3:35 PM	4:05 PM	4:45 PM	5:25 PM	6:05 PM	6:40 PM
150 Hayes	3:50 PM	4:25 PM	5:05 PM	5:45 PM	6:25 PM	6:50 PM

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

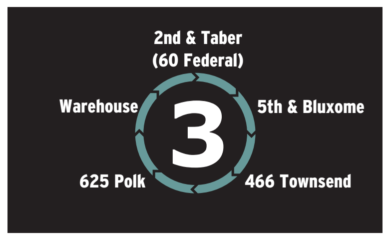
Monday - Friday*



EXPRESS #1 MONDAY - FRIDAY			
Warehouse	11:25 AM		2:55 PM
625 Polk	11:32 AM		3:02 PM
491 Post	11:40 AM		3:10 PM
Kearny & Bush	11:45 AM		3:15 PM
2nd & Taber	11:52 AM		3:22 PM
5th & Bluxome	11:56 AM		3:26 PM
466 Townsend	11:58 AM		3:28 PM



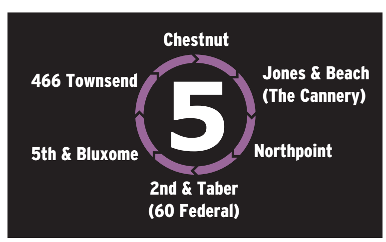
EXPRESS #2 MONDAY - FRIDAY			
79 NM	11:25 PM		2:55 PM
2nd & Taber	11:29 AM		3:00 PM
5th & Bluxome	11:33 AM		3:04 PM
466 Townsend	11:35 AM		3:06 PM
625 Polk	11:43 AM		3:15 PM
Warehouse	11:50 AM		3:22 PM
Northpoint	11:58 AM		3:30 PM



EXPRESS #3 MON - FRI	
2nd & Taber	6:30 PM
5th & Bluxome	6:34 PM
466 Townsend	6:36 PM
625 Polk	6:45 PM
Warehouse	6:55 PM

EXPRESS #4 MONDAY - FRIDAY		
2nd & Taber	12:07 PM	12:47 PM
Chestnut	12:27 PM	

EXPRESS #4 MONDAY - FRIDAY		
2nd & Taber	3:30 PM	4:10 PM
Chestnut	3:50 PM	



EXPRESS #5 MONDAY - FRIDAY			
Chestnut	11:25 AM		2:55 PM
Jones & Beach	11:28 AM		2:58 PM
Northpoint	11:32 AM		3:02 PM
2nd & Taber	11:50 AM		3:20 PM
5th & Bluxome	11:53 AM		3:23 PM
466 Townsend	11:55 AM		3:25 PM

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Academy of Art University Campus Map & SP '15 SAT + SUN Shuttle Schedule

Schedule valid until 2/13/15

See 'Courtesy Shuttle Service' link at my.academyart.edu for updated schedules.

Campus Academic & Administrative Buildings

1 **2300 STOCKTON ST. [NORTHPOINT]**
_Cybercampus & Online Support
_Fashion Classrooms
_Fashion Merchandising Workshop
_Liberal Arts Classrooms

2 **701 CHESTNUT ST.**
_Fine Art MFA Studios

3 **2151 VAN NESS AVE. [ST. BRIGID'S]**
_Auditorium
_IDS Classrooms

4 **1849 WASHINGTON ST. @ VAN NESS AVE. [THE WAREHOUSE]**
_Industrial Design
_Photo Classrooms
_Photo Studios
_Firestone Café

5 **740 TAYLOR ST.**
_Photo Classrooms
_Photo Darkrooms
_Photo Issue Room
_Snack Bar (Laszlo Lounge)

6 **688 SUTTER ST.**
_Acting

7 **625 SUTTER ST.**
_Photography
_Student Gallery
_Photo Darkrooms
_Photo Issue Room
_Photo Studios

8 **491 POST ST. [MORGAN AUDITORIUM]**
_Liberal Arts
_Art History

9 **540 POWELL ST.**
_2D Animation and Visual Effects
_Illustration
_Visual Development
_Bradley Hall

10 **410 BUSH ST.**
_Advertising
_Jewelry and Small Metal Arts
_Fine Art Sculpture Studios
_Fine Art Sculpture Classrooms
_Fine Art Sculpture Tool Room

11 **79 NEW MONTGOMERY ST. [79NM]**
_Academy Resource Center
_Admissions (Grad & Ungrad)
_Atelier
_English for Art Purposes
_Graphic Design
_Grievance
_Housing
_Human Resources
_International Student Offices
_Motion Pictures & Television Issue Room & Film Post
_Multimedia Communications
_Student Copy Center
_Student Lounge (Café Cezanne)
_Theater
_Tours

12 **150 HAYES ST.**
_Accounts Receivable
_Administration Offices
_Financial Aid
_Graduate School

13 **180 NEW MONTGOMERY ST. [180NM]**
_2D Animation & Visual Effects
_3D Animation & VisualEffects
_Art Education
_Digital Photography
_Fashion Classrooms
_Game Design
_Library
_Music Production & Sound Design for Visual Media
_Mac Lab
_MPT Editing Facilities
_Mulitmedia Language Lab
_PC Lab
_Security
_Student ID Distribution
_Student Lounge (Café Dior)
_Study Hall/Writing Lab
_Web Design and New Media

14 **60 FEDERAL ST.**
_Fine Art
_Foundations Classrooms

15 **601 BRANNAN ST.**
_Architecture
_Interior Architecture & Design
_Landscape Architecture
_Usability Lab
_Wood Shop
_Student Lounge

16 **466 TOWNSEND ST.**
_MPT
_Foundations
_Acting Classrooms
_MPT Studios
_Architecure Studio Classrooms

17 **460 TOWNSEND ST.**
_Interior Architecture & Design
_Classrooms
_Landscape Architecture Classrooms

18 **625 POLK ST.**
_Fashion
_Cafe Dior & Dior Express

19 **2801 LEAVENWORTH ST. [THE CANNERY]**
_Athletics
_Campus Life/Activities
_Fine Art Sculpture
_Foundations Classrooms

20 **360 SWIFT AVE.* SOUTH SAN FRANCISCO**
(Not shown on this map)
_Foundry

Utrecht Art Supplies

_Academy of Art@Townsend 466 Townsend Street, 3rd Fl.
_1930 Van Ness Ave.
_149 New Montgomery St.
_Academy of Art @ Federal 60 Federal Street, 4th Fl.

Campus Housing

A **2211 VAN NESS AVE.**
_Ansel Adams Apartments

B **2209 VAN NESS AVE.**
_Mary Cassatt House

C **1900 JACKSON ST.**
_John Singer Sargent Graduate Apartments

D **1916 OCTAVIA ST.**
_Coco Chanel House

E **1055 PINE ST.**
_Auguste Rodin Hall
_Cafe Rodin

F **1080 BUSH ST.**
_Leonardo da Vinci Apartments

G **1153 BUSH ST.**
_Frank Lloyd Wright House

H **860 SUTTER ST.**
_International House
_I House Cafe

I **825 SUTTER ST.**
_The Commodore Hall

J **736 JONES ST.**
_Johannes Vermeer Apartments

K **680 SUTTER ST.**
_Edgar Degas Apartments

L **655 SUTTER ST.**
_Howard Brodie Hall
_Campus Life & Leadership
_Urban Knights Art Café

M **560 POWELL ST.**
_Fritz Lang Apartments

N **620 SUTTER ST.**
_Clara Gil Stephens Hall
_620 Sutter Cafe
_Dance Studio
_Fitness Area
_Swimming Pool

O **1727 LOMBARD ST.**
_Star Hall

P **575 HARRISON ST.**
_Halfmoon Apartments

Q **168 BLUXOME ST.**
_The Bluxome Lofts

Saturday

BUS ROUTES

1 2 3 4

BUS STOPS

Ware house	Van Ness	1916 Octavia	1727 Lombard	620 Sutter	860 Sutter
4	3	D	O	N	H

625 Polk	180 NM	2nd & Taber (60 Federal)	5th & Bluxome	466 Townsend	601 Brannan (after 4PM)
18	13	2 & T	5 & B	16	15

Kearny & Bush (410 Bush)	Chestnut	Jones & Beach (The Cannery)	Northpoint
K & B	2	J & B	1

Sunday

BUS ROUTES

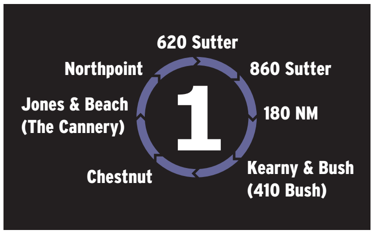
1

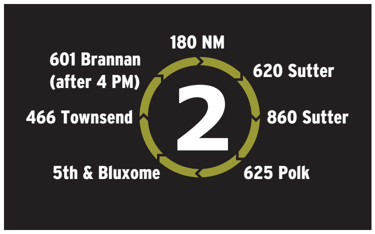
BUS STOPS

Ware house	Van Ness	1916 Octavia	1727 Lombard	620 Sutter	860 Sutter	180 NM
4	3	D	O	N	H	13

Kearny & Bush (410 Bush)	Chestnut	Jones & Beach (The Cannery)	625 Polk	60 Federal	5th & Bluxome	466 Townsend
K & B	2	J & B	18	14	5 & B	16

Saturday*





#1 SHUTTLE - SATURDAY MORNING / EARLY AFTERNOON

620 Sutter	7:39 AM	8:28 AM	9:20 AM		10:35 AM	11:25 AM		1:00 PM
860 Sutter	7:41 AM	8:30 AM	9:22 AM		10:37 AM	11:27 AM		1:02 PM
180 NM	7:51 AM	8:40 AM	9:32 AM		10:47 AM	11:37 AM		1:12 PM
Kearny & Bush	7:54 AM	8:43 AM	9:35 AM		10:50 AM	11:40 AM		1:15 PM
Chestnut	8:01 AM	8:50 AM	9:42 AM		10:58 AM	11:49 AM		1:23 PM
Jones & Beach	8:03 AM	8:52 AM	9:44 AM		11:00 AM	11:50 AM		1:25 PM
Northpoint	8:08 AM	9:00 AM	10:00 AM	10:15 AM	11:05 AM	11:55 AM	12:42 PM	1:30 PM

#1 SHUTTLE - SATURDAY AFTERNOON / EARLY EVENING

620 Sutter	1:50 PM		3:00 PM	3:40 PM	4:35 PM		6:05 PM	7:00 PM
860 Sutter	1:52 PM		3:02 PM	3:43 PM	4:37 PM		6:08 PM	7:01 PM
180 NM	2:02 PM		3:07 PM	3:53 PM	4:47 PM		6:20 PM	7:11 PM
Kearny & Bush	2:05 PM		3:10 PM	3:56 PM	4:50 PM		6:23 PM	7:15 PM
Chestnut	2:15 PM		3:18 PM	4:03 PM	5:00 PM		6:32 PM	7:23 PM
Jones & Beach	2:17 PM		3:20 PM	4:05 PM	5:02 PM		6:35 PM	7:25 PM
Northpoint	2:25 PM	2:40 PM	3:25 PM	4:10 PM	5:10 PM	5:45 PM	6:40 PM	7:30 PM

#1 SHUTTLE - SATURDAY EVENING

620 Sutter	7:50 PM		9:00 PM	9:45 PM	10:30 PM		
860 Sutter	7:51 PM		9:02 PM	9:47 PM	10:32 PM		TO ANY
180 NM	8:01 PM		9:12 PM	9:57 PM	10:42 PM		AAU
Kearny & Bush	8:05 PM		9:16 PM	10:00 PM	10:46 PM		BUILDING
Chestnut	8:13 PM		9:23 PM	10:07 PM	10:54 PM		ASK
Jones & Beach	8:15 PM	8:45 PM	9:25 PM	10:09 PM	10:55 PM	11:10 PM	DRIVER
Northpoint			9:30 PM	10:14 PM			

#2 SHUTTLE - SATURDAY MORNING

180 NM		7:56 AM	8:38 AM	9:20 AM		10:20 AM	11:00 AM
620 Sutter		8:08 AM	8:50 AM	9:30 AM		10:30 AM	11:10 AM
860 Sutter		8:10 AM	8:52 AM	9:32 AM		10:32 AM	11:12 AM
625 Polk		8:16 AM	8:58 AM	9:38 AM		10:38 AM	11:18 AM
5th & Bluxome	7:44 AM	8:26 AM	9:08 AM	9:48 AM		10:48 AM	11:28 AM
466 Townsend	7:46 AM	8:28 AM	9:10 AM	9:50 AM	10:10 AM	10:50 AM	11:30 AM
601 Brannan							

#2 SHUTTLE - SATURDAY AFTERNOON

180 NM	11:40 AM		12:55 PM	1:40 PM		2:40 PM	3:22 PM
620 Sutter	11:50 AM		1:05 PM	1:50 PM		2:50 PM	3:32 PM
860 Sutter	11:52 AM		1:07 PM	1:52 PM		2:52 PM	3:34 PM
625 Polk	11:58 AM		1:12 PM	1:58 PM		3:00 PM	3:40 PM
5th & Bluxome	12:08 PM		1:23 PM	2:08 PM		3:10 PM	3:50 PM
466 Townsend	12:10 PM	12:45 PM	1:30 PM	2:10 PM	2:30 PM	3:12 PM	3:52 PM
601 Brannan							

#2 SHUTTLE - SATURDAY LATE AFTERNOON / EARLY EVENING

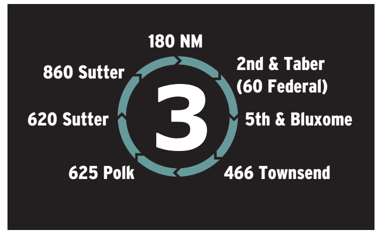
180 NM	4:02 PM	4:45 PM		6:03 PM	6:48 PM	7:28 PM	
620 Sutter	4:12 PM	4:55 PM		6:15 PM	6:57 PM	7:38 PM	
860 Sutter	4:14 PM	4:57 PM		6:16 PM	6:58 PM	7:39 PM	
625 Polk	4:20 PM	5:05 PM		6:22 PM	7:03 PM	7:45 PM	
5th & Bluxome	4:30 PM	5:15 PM		6:32 PM	7:13 PM	7:55 PM	8:33 PM
466 Townsend	4:32 PM	5:17 PM	5:50 PM	6:35 PM	7:15 PM	7:57 PM	8:35 PM
601 Brannan	4:35 PM		5:53 PM	6:38 PM	7:18 PM		8:38 PM

#2 SHUTTLE - SATURDAY EVENING

180 NM	8:48 PM		9:40 PM	10:25 PM	
620 Sutter	8:58 PM		9:50 PM	10:35 PM	TO ANY
860 Sutter	9:00 PM		9:52 PM	10:37 PM	AAU
625 Polk	9:05 PM		10:00 PM	10:43 PM	BUILDING
5th & Bluxome	9:15 PM		10:08 PM	10:55 PM	ASK
466 Townsend	9:17 PM	9:30 PM	10:10 PM	11:00 PM	DRIVER
601 Brannan		9:33 PM	10:13 PM	11:04 PM	

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Saturday*



#3 SHUTTLE - SATURDAY MORNING / EARLY AFTERNOON

180 NM	7:30 AM	7:36 AM	7:40 AM	7:42 AM	7:50 AM	8:00 AM	8:02 AM	
2nd & Taber	8:12 AM	8:20 AM	8:24 AM	8:26 AM	8:34 AM	8:44 AM	8:46 AM	
5th & Bluxome	8:56 AM	9:04 AM	9:08 AM	9:10 AM				
466 Townsend				9:25 AM	9:33 AM	9:43 AM	9:45 AM	
625 Polk	9:55 AM	10:03 AM	10:07 AM	10:10 AM	10:18 AM	10:28 AM	10:30 AM	
620 Sutter	10:40 AM	10:48 AM	10:52 AM	10:55 AM	11:03 AM	11:13 AM	11:15 AM	12:43 PM
860 Sutter	11:25 AM	11:33 AM	11:37 AM	11:40 AM	11:48 AM	11:58 AM		12:45 PM

#3 SHUTTLE - SATURDAY AFTERNOON

180 NM	12:55 PM	1:40 PM		2:40 PM	3:25 PM	4:15 PM
2nd & Taber	1:03 PM	1:48 PM		2:48 PM	3:33 PM	4:23 PM
5th & Bluxome	1:07 PM	1:52 PM		2:52 PM	3:40 PM	4:27 PM
466 Townsend	1:10 PM	1:55 PM	2:10 PM	2:55 PM	3:45 PM	4:30 PM
625 Polk	1:18 PM		2:18 PM	3:03 PM	3:53 PM	4:38 PM
620 Sutter	1:28 PM		2:28 PM	3:13 PM	4:03 PM	4:48 PM
860 Sutter	1:30 PM		2:30 PM	3:15 PM	4:05 PM	4:50 PM

#3 SHUTTLE - SATURDAY EARLY EVENING

180 NM	5:00 PM	5:45 PM		6:50 PM	7:30 PM	
2nd & Taber	5:08 PM	5:53 PM		6:54 PM	7:38 PM	
5th & Bluxome	5:13 PM	6:03 PM		6:57 PM	7:42 PM	
466 Townsend	5:15 PM	6:05 PM	6:20 AM	7:00 PM	7:45 PM	8:20 PM
625 Polk	5:23 PM		6:28 PM	7:08 PM		8:28 PM
620 Sutter	5:33 PM		6:38 PM	7:18 PM		8:38 PM
860 Sutter	5:35 PM		6:40 PM	7:20 PM		8:40 PM

#3 SHUTTLE - SATURDAY EVENING

180 NM	8:50 PM	9:35 PM		10:50 PM
2nd & Taber	8:58 PM	9:43 PM		10:58 PM
5th & Bluxome	9:02 PM	9:58 PM		11:05 PM
466 Townsend	9:05 PM	10:00 PM	10:15 PM	11:07 PM
625 Polk	9:13 PM		10:23 PM	TO ANY
620 Sutter	9:23 PM		10:33 PM	AAU
860 Sutter	9:25 PM		10:35 PM	BUILDING

#4 SHUTTLE - SATURDAY MORNING

Lombard	7:40 AM	8:23 AM	9:05 AM	9:45 AM	10:00 AM	10:40 AM
Van Ness	7:43 AM	8:27 AM	9:09 AM		10:03 AM	10:43 AM
Warehouse	7:45 AM	8:29 AM	9:11 AM		10:04 AM	10:44 AM
Octavia	7:50 AM	8:33 AM	9:16 AM		10:08 AM	10:48 AM
620 Sutter	8:00 AM	8:43 AM	9:26 AM		10:18 AM	10:58 AM
860 Sutter	8:03 AM	8:45 AM	9:28 AM		10:20 AM	11:00 AM

#4 SHUTTLE - SATURDAY LATE MORING / EARLY AFTERNOON

Lombard	11:20 AM	12:00 PM	12:35 PM	1:15 PM	1:55 PM	2:10 PM	2:50 PM
Van Ness	11:24 AM		12:38 PM	1:18 PM		2:13 PM	2:54 PM
Warehouse	11:26 AM		12:40 PM	1:20 PM		2:14 PM	2:55 PM
Octavia	11:30 AM		12:44 PM	1:24 PM		2:18 PM	2:59 PM
620 Sutter	11:40 AM		12:54 PM	1:34 PM		2:28 PM	3:09 PM
860 Sutter	11:42 AM		12:56 PM	1:36 PM		2:30 PM	3:11 PM

#4 SHUTTLE - SATURDAY LATE AFTERNOON / EARLY EVENING

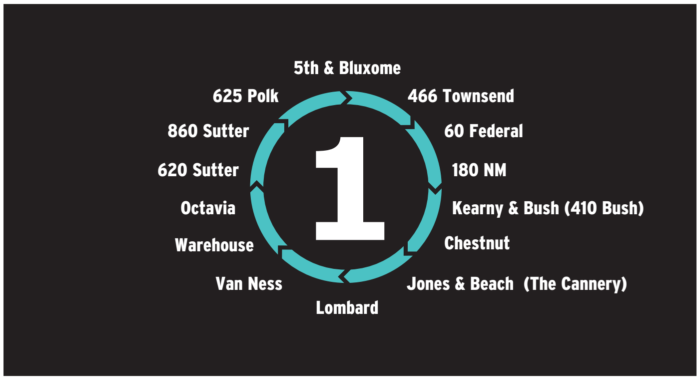
Lombard	3:30 PM	4:10 PM	4:50 PM	5:05 PM	5:45 PM	6:25 PM	7:05 PM
Van Ness	3:33 PM	4:13 PM		5:08 PM	5:48 PM	6:28 PM	
Warehouse	3:34 PM	4:15 PM		5:10 PM	5:50 PM	6:30 PM	
Octavia	3:38 PM	4:19 PM		5:14 PM	5:54 PM	6:34 PM	
620 Sutter	3:48 PM	4:29 PM		5:23 PM	6:04 PM	6:44 PM	
860 Sutter	3:50 PM	4:31 PM		5:25 PM	6:05 PM	6:45 PM	

#4 SHUTTLE - SATURDAY EVENING

Lombard	7:40 PM	8:20 PM	9:00 PM	9:15 PM	9:56 PM
Van Ness	7:43 PM	8:23 PM		9:18 PM	10:00 PM
Warehouse	7:45 PM	8:25 PM		9:20 PM	10:02 PM
Octavia	7:49 PM	8:29 PM		9:24 PM	10:06 PM
620 Sutter	7:58 PM	8:39 PM		9:34 PM	TO ANY
860 Sutter	8:00 PM	8:40 PM		9:36 PM	BUILDING

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Sunday*



#1 SHUTTLE - SUNDAY MORNING / AFTERNOON								
5th & Bluxome	7:33 AM	8:48 AM	10:05 AM		11:34 AM	12:48 PM	2:08 PM	
466 Townsend	7:35 AM	8:50 AM	10:07 AM	10:20 AM	11:35 AM	12:50 PM	2:10 PM	2:25 PM
60 Federal	7:40 AM	8:56 AM		10:25 AM	11:40 AM	1:00 PM		2:30 PM
180 NM	7:48 AM	9:06 AM		10:33 AM	11:48 AM	1:08 PM		2:38 PM
Kearny & Bush	7:52 AM	9:09 AM		10:37 AM	11:52 AM	1:12 PM		2:42 PM
Chestnut	8:00 AM	9:16 AM		10:45 AM	12:00 PM	1:20 PM		2:50 PM
Jones & Beach	8:03 AM	9:18 AM		10:47 AM	12:02 PM	1:22 PM		2:52 PM
Lombard	8:13 AM	9:28 AM		10:57 AM	12:12 PM	1:32 PM		3:02 PM
Van Ness	8:17 AM	9:31 AM		11:00 AM	12:15 PM	1:35 PM		3:05 PM
Warehouse	8:19 AM	9:33 AM		11:02 AM	12:17 PM	1:37 PM		3:07 PM
Octavia	8:23 AM	9:38 AM		11:06 AM	12:21 PM	1:41 PM		3:11 PM
620 Sutter	8:31 AM	9:48 AM		11:15 AM	12:30 PM	1:50 PM		3:20 PM
860 Sutter	8:33 AM	9:50 AM		11:17 AM	12:32 PM	1:52 PM		3:22 PM
625 Polk	8:38 AM	9:55 AM		11:24 AM	12:38 PM	1:58 PM		3:28 PM

#1 SHUTTLE - SUNDAY LATE AFTERNOON / EVENING						
5th & Bluxome	3:38 PM	4:53 PM	6:08 PM		7:38 PM	8:47 PM
466 Townsend	3:40 PM	4:55 PM	6:10 PM	6:25 PM	7:40 PM	8:48 PM
60 Federal	3:45 PM	5:00 PM		6:30 PM	7:45 PM	
180 NM	3:53 PM	5:08 PM		6:38 PM	7:53 PM	
Kearny & Bush	3:57 PM	5:12 PM		6:42 PM	7:56 PM	
Chestnut	4:05 PM	5:20 PM		6:50 PM	8:04 PM	
Jones & Beach	4:07 PM	5:22 PM		6:52 PM	8:06 PM	
Lombard	4:17 PM	5:32 PM		7:02 PM	8:15 PM	
Van Ness	4:20 PM	5:35 PM		7:05 PM	8:18 PM	
Warehouse	4:22 PM	5:37 PM		7:07 PM	8:19 PM	
Octavia	4:27 PM	5:42 PM		7:12 PM	8:23 PM	
620 Sutter	4:35 PM	5:51 PM		7:21 PM	8:30 PM	
860 Sutter	4:37 PM	5:53 PM		7:23 PM	8:31 PM	
625 Polk	4:43 PM	5:58 PM		7:28 PM	8:37 PM	

*Valid until 2/13/15. Go to http://my.academyart.edu/campusinfo/login.jsp for the latest schedule. Shuttles may run later than scheduled due to traffic congestion.

Courtesy Shuttle Service

The Academy of Art University provides its own private Courtesy Shuttle Service for all students with Academy student ID badges. Courtesy shuttles provide free, reliable transportation between residence halls and academic buildings. They run on specific routes at specific times and are not intended as general transportation.

Each route is represented by a letter or number (A, B, C,... 1, 2, 3...). Route signage is clearly displayed on the front and sides of the shuttles.

Remember to Plan Ahead! Students are responsible for arriving at their courtesy shuttle stop on time. All students must **show their ID badge upon boarding** Academy buses or at the request of the bus driver

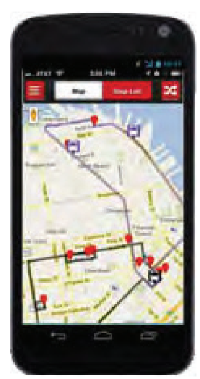
Step one: Get Online!

Access the Shuttle Schedule Online (click on Courtesy Shuttle Service)

- at Lobby Computer Stations, or
- in Residence Computer Areas, or

Step two: Choose your Schedule!

- Use Easy, Interactive Schedule, or
- Download the AAU Campus app to your cell phone



Transportation Help Desk:
415.618.6370

Academy Communication Center:
415.618.3896

Suggestions & Non-Urgent Questions:
transportation@academyart.edu

Appendix TR-C: Shuttle Bus Ridership

AAU Shuttle Ridership Summary (Fall 2010)

Row Labels	Sum of Totals
9/26/2010	613
9/27/2010	9,288
9/28/2010	9,833
9/29/2010	8,603
9/30/2010	9,235
10/1/2010	7,807
10/2/2010	2,696
10/3/2010	608
10/4/2010	9,708
10/5/2010	10,593
10/6/2010	9,490
10/7/2010	9,670
10/8/2010	7,518
Grand Total	**95,662**

Row Labels	Sum of Totals	count	Avg	
Sunday	1,221	2	611	
Monday	18,996	2	9,498	
Tuesday	20,426	2	10,213	
Wednesday	18,093	2	9,047	
Thursday	18,905	2	9,453	
Friday	15,325	2	7,663	
Saturday	2,696	1	2,696	
Grand Total	**95,662**	13	**49,179**	**WEEKLY BOARDING**
			9,175	**WEEKDAY DAILY BOARDING**
			2,696	**SAT DAILY BOARDING**
			611	**SUN DAILY BOARDING**

Row Labels	Sum of Totals	count of days	AVERAGE DAILY BOARDING BY ROUTE	
D	6,249	10	**625**	
E	5,162	10	**516**	
H	42,035	10	**4204**	
I	29,367	10	**2937**	
M	1,461	10	**146**	
Q	4,279	10	**428**	
R	3,192	10	**319**	9,175
Sat1	868	1	**868**	
Sat2	228	1	**228**	
Sat3	1,194	1	**1194**	
Sat4	347	1	**347**	
Sat5	59	1	**59**	2,696
Sun1	797	2	**399**	
Sun2	424	2	**212**	611
Grand Total	**95,662**			

Row Labels	Sum of 7:00-7:59	Sum of 8:00-8:59	Sum of 4:00-4:59	Sum of 5:00-5:59	Sum of 6:00-6:59	count of days
D	218	753	231	299	821	10
E	140	446	175	251	567	10
H	2,166	4,682	1,492	1,916	3,672	10
I	1,170	1,519	1,713	2,108	3,305	10
M	142	109	75	50	179	10
Q	569	368	246	70	192	10
R	161	190	180	236	309	10
Grand Total	**4,566**	**8,067**	**4,112**	**4,930**	**9,045**	

AVERAGE PM PEAK HOUR BOARDING BY ROUTE

	7-8A	8-9A	4-5P	**5-6P**	6-7P
D	22	75	23	**30**	82
E	14	45	18	**25**	57
H	217	468	149	**192**	367
I	117	152	171	**211**	331
M	14	11	8	**5**	18
Q	57	37	25	**7**	19
R	16	19	18	**24**	31
Grand Tota	457	807	411	**493**	905

Row Labels	Sum of 7:00-7:59	Sum of 8:00-8:59	Sum of 9:00-9:59	Sum of 10:00-10:59	Sum of 11:00-11:59	Sum of 12:00-12:59	Sum of 1:00-1:59	Sum of 2:00-2:59	Sum of 3:00-3:59	Sum of 4:00-4:59	Sum of 5:00-5:59	Sum of 6:00-6:59	Sum of 7:00-7:592	Sum of 8:00-8:592	Sum of 9:00- 9:59	Sum of 10:00-10:592	Sum of 11:00-11:592	Sum of 12:00-12:59 AM	Sum of Totals
9/27/2010	464	795	244	280	1,166	499	608	1,023	852	489	540	1,010	336	238	316	304	92	32	9,288
9/28/2010	459	877	199	305	1,463	564	358	1,102	1,054	409	417	1,090	301	300	425	332	144	34	9,833
9/29/2010	454	842	173	302	1,258	467	305	812	890	426	501	877	357	294	289	250	68	38	8,603
9/30/2010	406	830	214	287	1,240	563	384	1,037	1,050	417	472	846	485	268	309	296	102	29	9,235
10/1/2010	325	776	296	267	917	476	515	838	914	569	536	523	215	237	158	132	88	25	7,807
10/4/2010	525	734	224	296	1,225	488	488	1,132	1,483	380	435	1,074	363	226	250	282	60	43	9,708
10/5/2010	555	827	197	329	1,548	514	472	1,236	1,294	358	521	1,107	498	263	368	355	116	35	10,593
10/6/2010	515	894	152	290	1,480	383	328	1,153	1,308	340	470	1,003	366	240	253	187	71	57	9,490
10/7/2010	458	953	251	276	1,388	487	335	960	1,326	341	472	994	288	345	464	240	59	33	9,670
10/8/2010	405	539	236	232	879	464	462	866	906	383	566	521	360	212	222	133	83	49	7,518
Grand Total	**4,566**	**8,067**	**2,186**	**2,864**	**12,564**	**4,905**	**4,255**	**10,159**	**11,077**	**4,112**	**4,930**	**9,045**	**3,569**	**2,623**	**3,054**	**2,511**	**883**	**375**	**91,745**

Row Labels	Sum of 7:00-7:59	Sum of 8:00-8:59	Sum of 9:00-9:59	Sum of 10:00-10:59	Sum of 11:00-11:59	Sum of 12:00-12:59	Sum of 1:00-1:59	Sum of 2:00-2:59	Sum of 3:00-3:59	Sum of 4:00-4:59	Sum of 5:00-5:59	Sum of 6:00-6:59	Sum of 7:00-7:592	Sum of 8:00-8:592	Sum of 9:00- 9:59	Sum of 10:00-10:592	Sum of 11:00-11:592	Sum of 12:00-12:59 AM	Sum of Totals
D	218	753	115	175	842	245	165	657	1,071	231	299	821	201	168	167	86	31	4	6,249
E	140	446	68	111	784	328	158	803	787	175	251	567	200	100	93	120	21	10	5,162
H	2,166	4,682	1,285	1,554	6,145	2,544	2,113	4,921	5,182	1,492	1,916	3,672	1,078	807	1,000	852	308	318	42,035
I	1,170	1,519	504	592	3,897	1,252	1,433	2,924	2,960	1,713	2,108	3,305	1,659	1,304	1,498	1,174	345	10	29,367
M	142	109	55	64	72	23	72	163	196	75	50	179	37	46	68	44	66	0	1,461
Q	569	368	83	278	477	363	144	491	545	246	70	192	124	90	84	61	69	25	4,279
R	161	190	76	90	347	150	170	200	336	180	236	309	270	108	144	174	43	8	3,192
Grand Total	**4,566**	**8,067**	**2,186**	**2,864**	**12,564**	**4,905**	**4,255**	**10,159**	**11,077**	**4,112**	**4,930**	**9,045**	**3,569**	**2,623**	**3,054**	**2,511**	**883**	**375**	**91,745**

AAU Shuttle ridership Summary (Spring 2015)

Row Labels	Sum of Daily Tota
4/11/2015	447
4/12/2015	119
4/13/2015	4,124
4/14/2015	4,284
4/15/2015	4,059
4/16/2015	4,011
4/17/2015	2,906
4/18/2015	376
4/19/2015	128
4/20/2015	3,605
4/21/2015	4,299
4/22/2015	4,552
4/23/2015	3,738
4/24/2015	3,112
Grand Total	**39,760**

Row Label	Sum of Daily '	count of da	Avg
Sunday	247	2	124
Monday	7,729	2	3,865
Tuesday	8,583	2	4,292
Wednesda	8,611	2	4,306
Thursday	7,749	2	3,875
Friday	6,018	2	3,009
Saturday	823	2	412
Grand Tot	**39,760**		

19,880 AVG WEEKLY BOARDING
3,869 AVG WEEKDAY BOARDING
412 AVG SAT BOARDING
124 AVG SUN BOARDING

Row Labels	Sum of Dail	count	AVG DAILY BOARIDNG BY R(
D	5,190	2	**2,595**
E	3,693	2	**1,847**
EX1	70	2	**35**
EX2	122	2	**61**
EX3	20	2	**10**
EX4	20	2	**10**
EX5	61	2	**31**
G	2,217	2	**1,109**
H	12,837	2	**6,419**
HX	667	2	**334**
I	8,537	2	**4,269**
M	4,388	2	**2,194**
Sat1	104	2	**52**
Sat2	283	2	**142**
Sat3	158	2	**79**
Sat4	278	2	**139**
Sun1	247	2	**124**
SX	868	2	**434**
Grand Total	**39,760**		

Appendix TR-D: Shuttle Bus Seating Capacity

Spring 2010 Shuttle Capacity Utilization Analysis (Daily and PM Peak Hour)*

Route	Vehicle Capacity: Seating Capacity	Vehicle Capacity: Crush Capacity (a)	Daily Zero Load: Total Count of Load at All Stops per Day	Daily Zero Load: Count of 0 Load at All Stops per Day	Daily Zero Load: Percent of Daily 0 Load		Average Daily Load: Average Daily Load at All Stops	Average Daily Load: Average Daily Utilization at All Stops		PM Peak Hour - Utilization: Max Load per Run during PM Peak Hour	Max Utilization during PM Peak Hour (based on seating capacity)		Max Utilization during PM Peak Hour (based on crush capacity)		MLP During PM Peak Hour	PM Peak Hour - Excess Capacity: PM Peak Hour Cycle Time	Seating Capacity during PM Peak Hour		Crush Capacity during PM Peak Hour		Max Load during PM Peak Hour	Excess Seating Capacity during PM Peak Hour		Excess Crush Capacity during PM Peak Hour	
D-1	33	53	86	20	23%	24%	4	12%	11%	9	27%	30%	17%	19%	2300 Stockton	30	66	120	106	192	18	48	84	88	156
D-2	27	43	57	14	25%		3	10%		9	33%		21%		2300 Stockton	30	54		86		18	36		68	
E-1	39	62	60	15	25%	25%	4	11%	12%	9	23%	30%	14%	19%	NORTHPOINT	30	78	132	125	211	18	60	94	107	173
E-2	27	43	66	17	26%		3	13%		10	37%		23%		NORTHPOINT	30	54		86		20	34		66	
H-1	39	62	119	3	3%	6%	11	27%	25%	36	92%	63%	58%	39%	TOWNSEND	40	59	234	94	374	54	5	87	40	227
H-2	39	62	112	8	7%		10	25%		27	69%		43%		79 NM	40	59		94		41	18		53	
H-3	39	62	117	11	9%		9	23%		9	23%		14%		620 SUTTER	40	59		94		14	45		80	
H-4	39	62	113	5	4%		9	22%		26	67%		42%		TOWNSEND	40	59		94		39	20		55	
I-1	26	42	73	1	1%	7%	8	31%	27%	15	58%	78%	36%	48%	620 SUTTER	30	52	260	83	416	30	22	56	53	212
I-2	34	54	90	2	2%		11	32%		39	115%		72%		TOWNSEND	30	68		109		78	-10		31	
I-3	39	62	93	19	20%		8	20%		26	67%		42%		60 Federal	30	78		125		52	26		73	
I-4	31	50	101	6	6%		8	27%		22	71%		44%		79 NM	30	62		99		44	18		55	
M	27	43	116	30	26%	26%	3	12%	12%	12	44%	44%	28%	28%	WAREHOUSE	25	65	65	104	104	29	36	36	75	75
Q	24	38	110	26	24%	24%	4	15%	15%	7	29%	29%	18%	18%	VAN NESS	30	48	48	77	77	14	34	34	63	63
R	33	53	124	19	15%	15%	3	11%	11%	6	18%	18%	11%	11%	860 SUTTER	30	66	66	106	106	12	54	54	94	94
All	**33**				**14%**	**18%**	**98**		**16%**	**0**		**42%**		**26%**			**925**	**925**	**1480**	**1480**		**445**	**445**	**1000**	**1000**

*No equivalent data are available for fall 2010, but as the routes were the same, both the sprign and the fall rdership would be comparable.

(a) Crush capacity is estimated to be approximately 160 percent of seating capacity.

Spring 2010 Shuttle Capacity Utilization Analysis (Shuttle Peak Hour)

Route	Vehicle Capacity: Seating Capacity	Vehicle Capacity: Crush Capacity (a)	Shuttle Peak Hour - Utilization: Max Load per Run during Shuttle Peak Hour	Max Utilization during Shuttle Peak Hour (based on seating capacity)		Max Utilization during Shuttle Peak Hour (based on crush capacity)		Shuttle Peak Hour	MLP during Shuttle Peak Hour	Shuttle Peak Hour - Excess Capacity: PM Peak Hour Cycle Time	Seating Capacity during Shuttle Peak Hour		Crush Capacity during Shuttle Peak Hour		Max Load during Shuttle Peak Hour (a)	Excess Seating Capacity during Shuttle Peak Hour		Excess Crush Capacity during Shuttle Peak Hour	
D-1	33	53	23	70%	64%	44%	40%	8:02 AM	860 Sutter	30	66	120	106	192	30	36	69	76	141
D-2	27	43	16	59%		37%		8:17 AM	860 Sutter	30	54		86		21	33		65	
E-1	39	62	20	51%	63%	32%	39%	8:05 AM	79 NM	30	78	132	125	211	22	56	83	103	162
E-2	27	43	20	74%		46%		3:00 PM	NORTHPOINT	30	54		86		27	27		59	
H-1	39	62	47	121%	126%	75%	79%	3:00 PM	620 SUTTER	40	59	234	94	374	63	-4	3	31	143
H-2	39	62	54	138%		87%		2:48 PM	TOWNSEND	40	59		94		67	-8		27	
H-3	39	62	46	118%		74%		8:10 AM	79 NM	40	59		94		49	10		45	
H-4	39	62	50	128%		80%		11:40 AM	79 NM	40	59		94		54	5		40	
I-1	26	42	46	177%	130%	111%	81%	6:25 PM	79 NM	30	52	260	83	416	78	-26	17	5	173
I-2	34	54	39	115%		72%		4:56 PM	TOWNSEND	30	68		109		45	23		64	
I-3	39	62	38	97%		61%		6:05 PM	79 NM	30	78		125		64	14		61	
I-4	31	50	41	132%		83%		2:55 PM	79 NM	30	62		99		56	6		43	
M	27	43	22	81%	81%	51%	51%	3:12 PM	860 SUTTER	25	65	65	104	104	29	36	36	75	75
Q	24	38	23	96%	96%	60%	60%	8:00 AM	WAREHOUSE	30	48	48	77	77	27	21	21	50	50
R	33	53	18	55%	55%	34%	34%	2:55 PM	OCTAVIA	30	66	66	106	106	34	32	32	72	72
All	**33**				**88%**		**55%**				**925**	**925**		**1480**		**260**	**260**	**815**	**815**

(a) Indicates the sum of maximum loads in two consecutive shuttle runs, including the run with the daily peak load.

Additional Shuttle Bus Calaculation

	Option 1	Option 2
Estimated Shuttle Demand (1) :	**759**	**787**
Existing Seating Capacity based on Shuttle Peak Hour:	**260**	**815**
Additional Capacity Needed :	**499**	**527**
Avg Number of Seats/Bus :	**33**	**33**
Number of Additional Bus Runs Needed :	**15**	**16**
Number of Additional Buses Needed:	**8**	**8**

(a) Excludes residential shuttle demand.

(b) Assumes each bus would make two rounds per hour.

AAU Shuttle Bus Seating Capacity Comparison 2010 vs. 2015

2010 Weekday Routes	Headway			Hours of Operation	Avg Seating Capacity per Vehicle	Total Seating Capacity		
	Midday/Eve	AM Peak	PM Peak			Midday/Eve Hour	AM Peak Hour	PM Peak Hour
D	15	15	15	7:02 a.m. - 12:12 a.m.	30	120	120	120
E	15	15	15	7:15 a.m. - 12:10 a.m.	33	132	132	132
H	10	10	10	7:15 a.m. - 2:05 a.m.	39	234	234	234
I	7.5	7.5	7.5	7:12 a.m. - 12:20 a.m.	33	260	260	260
M	25	25	25	7:10 a.m. - 11:50 p.m.	27	65	65	65
Q	30	30	30	7:15 a.m. - 12:15 a.m.	24	48	48	48
R	30	30	30	7:15 a.m. - 12:10 a.m.	33	66	66	66
Total						**925**	**925**	**925**

2015 Weekday Routes	Headways			Hours of Operation	Avg Seating Capacity per Vehicle	Total Seating Capacity		
	Midday/Eve	AM Peak	PM Peak			Midday/Eve Hour	AM Peak Hour	PM Peak Hour
D	60	30	30	7:22 AM - 11:10 PM	25	25	50	50
E	55	30	30	7:33 AM - 10:35 PM	32	35	64	64
G	60	30	30	7:30 AM - 10:07 PM	33	33	66	66
H	40	20	20	7:15 AM - 11:09 PM	38	57	114	114
I	40	20	20	7:15 AM - 11:15 PM	40	60	120	120
M	35	20	20	7:02 AM - 11:21 PM	24	41	72	72
1	210 (twice a day)	N/A	N/A	11:25 AM - 3:28 PM	9	9	0	0
2	210 (twice a day)	N/A	N/A	11:25 AM - 3:30 PM	9	9	0	0
3	Once	N/A	N/A	6:30 PM - 6:55 PM	9	9	0	0
4	40	N/A	N/A	12:07 PM - 3:50 PM	9	14	0	0
5	210 (twice a day)	N/A	N/A	11:25 AM – 3:25 PM	9	9	0	0
Sutter Express	40	25	25	7:40 AM - 4:30 PM	8	12	19	19
Hayes Express	30	30	30	7:35 AM - 6:50 PM	8	16	16	16
Total						**329**	**521**	**521**

Appendix TR-E: On-Demand Shuttle Bus Trips

Fall 2010 Special Shuttle Trip Summary

Athletic Trips and Easy Trips

Row Labels	Sum of Athletic Trip	Sum of Easy Trip	Sum of Total	Average of Athletic Trip	Average of Easy Trip	Average of Total
September	144	362	506	5	12	17
October	197	354	551	6	11	18
November	116	342	458	4	11	15
December	53	501	554	2	16	18
Grand Total	**510**	**1559**	**2069**	**4**	**13**	**17**

Row Labels	Sum of Athletic Trip	Sum of Easy Trip	Sum of Total	Average of Athletic Trip	Average of Easy Trip	Average of Total
Sunday	23	63	86	1	4	5
Monday	88	221	309	5	13	18
Tuesday	86	349	435	5	21	26
Wednesday	88	253	341	5	14	19
Thursday	75	293	368	4	16	20
Friday	91	293	384	5	16	21
Saturday	59	87	146	3	5	9
Grand Total	**510**	**1559**	**2069**	**4**	**13**	**17**
Weekday Only	428	1409	1837	5	16	21
Weekend Only	82	82	82	2	4	7

Campus Tour Trips

Number of Campus Tour trips made in 2010 is not available because AAU started tracking a formal record of Campus Tours past fall 2010. Therefore, the number of trips made for campus tours was estimated based on the trips recorded for 2013 by prorating the percentage of campus tours relative to the total Athletic and Easy Trips.

	2010			**2013**		
On-Demand Trips	**Total**	**Avg Daily**	**Percent**	**Total**	**Avg Daily**	**Percent**
Athletic Trips	510	5	19%	672	5	18%
Easy Trips - Other	1173	13	44%	1458	11	38%
Easy Trips - Campus Tours	577	5	22%	819	7	21%
Easy Trips - Airport Trips	386	3	15%	875	8	23%
Total	2646	26	100%	3824	31	100%
Total without Campus Tours	*2069*			*3005*		

Spring 2015 Special Shuttle Trip Summaruy

Count of No.	**Column Labels**		
Row Labels	**Athletics**	**Easy**	**Grand Total**
January	45	130	175
February	199	630	829
March	145	684	829
April	150	696	846
May	15	379	394
Grand Total	**554**	**2519**	**3073**
	18%	82%	100%

	Average of Athletics Trip	Average of Easy Trip	Average of All Trips	# of Days
January	1	4	6	31
February	7	23	30	28
March	5	22	27	31
April	5	23	28	30
May	0	12	13	31
Total	4	17	20	151

Appendix TR-F: Trip Generation

AAU Trip Generation Assumptions

Trip Generation Rates

Land Use	Daily PT Rate	PM Peak PT Rate	% Inbound	% Outbound
Residence Hall[a, b]	3.76 trips/student	0.65 trips/student	45%	55%
	6.77 room	1.17 room		
Academic/Administrative Building[a]	53.65 trips/ksf	4.56 trips/ksf	39%	61%

Source: Table 3.2-1 in AAU EIR, February 2015.

a) Trip generation rates and inbound/outbound split data were derived from actual counts of persons entering/exiting AAU residential and academic/administrative buildings conducted by Atkins in 2010, using AAU's security camera video tapes.

b) A residential room occupancy factor of 1.8 was used to convert student to rooms.

Person Trip Composition

Population	Percent	
Faculty	7%	26%
Staff	20%	74%
Commuter Students	62%	85%
Residential Students	11%	15%
Total	100%	

AAU Trip Generation Estimates

ESID #	Site Location	Area	Uses	Use Type	Size		Daily		PM Peak					
					GSF	Rooms	PT Rate	PTE	PT Rate	Total PTE	Faculty	Staff	Comm Std	Res Std
1	2340 Stockton Street (ES-1)	Outsie Market	Classrooms, labs/studios, offices, galle	Institutional	44,530		53.65 /1,000 sf	2,389	4.56 /1,000 sf	203	14	40	126	22
2	2295 Taylor Street (ES-2)	Outsie Market	Classrooms, labs/studios, offices, galle	Institutional	20,000		53.65 /1,000 sf	1,073	4.56 /1,000 sf	91	6	18	57	10
3	1727 Lombard Street (ES-3)	Outsie Market	Residential	Residential	16,371	52	6.77 /room	352	1.17 /room	61				61
4	2211 Van Ness Avenue (ES-4)	Outsie Market	Residential	Residential	5,076	12	6.77 /room	81	1.17 /room	14				14
5	2209 Van Ness Avenue (ES-5)	Outsie Market	Residential	Residential	11,897	18	6.77 /room	122	1.17 /room	21				21
6	2151 Van Ness Avenue (ES-6)	Outsie Market	Auditorium, lecture facilities	Institutional	27,912			518		44	1	3	34	6
7	1849 Van Ness Avenue (ES-8)	Outsie Market	Classrooms, labs/studios, offices, art s	Institutional	107,908		53.65 /1,000 sf	5,789	4.56 /1,000 sf	492	35	98	305	54
8	1916 Octavia Boulevard (ES-9)	Outsie Market	Residential	Residential	13,171	22	6.77 /room	149	1.17 /room	26				26
9	950 Van Ness Avenue (ES-10)	Outsie Market	Classic vehicle museum	N/A	50,700			36		9		9		0
10	1153 Bush Street (ES-11)	Outsie Market	Residential	Residential	10,456	15	6.77 /room	102	1.17 /room	18				18
11	1080 Bush Street (ES-12)	Outsie Market	Residential	Residential	24,528	57	6.77 /room	386	1.17 /room	67				67
12	860 Sutter Street (ES-13)	Near Market	Residential	Residential	35,292	89	6.77 /room	603	1.17 /room	104				104
13	817-831 Sutter Street (ES-14)	Near Market	Residential, café	Residential	51,990	114	6.77 /room	772	1.17 /room	133				133
14	1069 Pine Street (ES-16)	Near Market	Student lounge, clubhouse, office, recr	Institutional	1,875		53.65 /1,000 sf	101	4.56 /1,000 sf	9	1	2	5	1
15	1055 Pine Street (ES-17)	Near Market	Residential, cafeteria	Residential	36,213	81	6.77 /room	548	1.17 /room	95				95
16	620 Sutter Street (ES-20)	Near Market	Residential, offices	Residential	67,775	65	6.77 /room	440	1.17 /room	76				76
17	491 Post Street (ES-23)	Near Market	Auditorium, classrooms, offices	Institutional	37,730			3,153		268	5	15	211	37
18	77 New Montgomery Street (ES-27)	Near Market	Main administrative building with classr	Institutional	147,509		53.65 /1,000 sf	7,914	4.56 /1,000 sf	673	47	134	417	74
19	180 New Montgomery Street (ES-28)	Near Market	Classrooms, labs/studios, library, office	Institutional	190,066		53.65 /1,000 sf	10,197	4.56 /1,000 sf	867	61	173	538	96
20	58-60 Federal Street (ES-30)	Outsie Market	Classrooms, labs/studios, offices, loun	Institutional	99,552		53.65 /1,000 sf	5,341	4.56 /1,000 sf	454	32	90	282	50
21	601 Brannan Street (ES-31)	Outsie Market	Classrooms, labs/studios, machine sho	Institutional	73,666		53.65 /1,000 sf	3,952	4.56 /1,000 sf	336	24	67	208	37
22	460 Townsend Street (ES-33)	Outsie Market	Classrooms, lab/studios, offices	Institutional	25,920		53.65 /1,000 sf	1,391	4.56 /1,000 sf	118	8	24	73	13
23	466 Townsend Street (ES-34)	Outsie Market	Classrooms, labs/studios, offices, loun	Institutional	113,436		53.65 /1,000 sf	6,086	4.56 /1,000 sf	517	36	103	321	57
Total					1,213,573	525		51,493		4,695	270	776	2,577	1,072

Trip generation is estimated based on population counts, not sqf.

Trip Generation Updates for 2151 Van Ness Avenue, 491 Post Street, and 950 Van Ness Avenue (4/20/2016)

Table 1 - Trip Generation Rates Comparison

ESTM Site (Institutional Use Only)	Size (sf)	Total PTE	Student Capacity		Trip Generation Rates		
			Max Capacity	Peak Use	PTE/KSF	PTE/Max Cap	PTE/Peak Use
2340 Stockton Street (ES-1)	44,530	203	380	215	4.56	0.5	0.9
2295 Taylor Street (ES-2)	20,000	91	8	0	4.56	11.4	
2151 Van Ness Avenue (ES-6)	27,912	127	989	6	4.56	0.1	21.2
1849 Van Ness Avenue (ES-8)	107,908	492	645	134	4.56	0.8	3.7
950 Van Ness Avenue (ES-10)	50,700		0	0			
1069 Pine Street (ES-16)	1,875	9	0	0	4.56		
491 Post Street (ES-23)	37,730	172	1053	124	4.56	0.2	1.4
77 New Montgomery Street (ES-27)	147,509	673	741	390	4.56	0.9	1.7
180 New Montgomery Street (ES-28)	190,066	867	1430	819	4.56	0.6	1.1
58-60 Federal Street (ES-30)	99,552	454	595	231	4.56	0.8	2.0
601 Brannan Street (ES-31)	73,666	336	514	150	4.56	0.7	2.2
460 Townsend Street (ES-33)	25,920	118	114	50	4.56	1.0	2.4
466 Townsend Street (ES-34)	113,436	517	675	301	4.56	0.8	1.7
Average					4.56	1.9	2.0

<- Average excl. 2151 VN and 491 Post

Source: AAU ESTM, 2016; AAU IMP, 2015

PTE=External Person Trips

Table 2 - Site Capacity and Population Counts

Site	Size	Capacity (# of std)[1][2]	Peak Use [3]		
			# of Std	# of F/S [4]	Total
2151 Van Ness Avenue (ES-6)	27,912 sqf	989	20	2	22
491 Post Street (ES-23)	37,730 sqf	1,053	124	10	134
Site	Size		FT employee	PT employee	Total
950 Van Ness Avenue (ES-10)	50,700 sqf		7	2	9

Source: AAU IMP, 2015

Std=Students; F/S=Faculty/Staff; FT=full-time; PT=part-time

[1] Includes capcaity of auditoriums/theaters.

[2] Student capacity includes capacity of classrooms, theaters, auditoriums, and any other space where student classes are scheduled. Graduate studios are not included, as student use is not regularly scheduled.

[3] Peak use consists of the highest enrollment for a given class scheduled on Tuesdays in Spring 2016.

[4] Email from Barbara Sahm, 4/14/2016

Table 3 - Person Trip Generation

Site	Daily	PM Peak Hour				
	Total PTE	Total PTE	Faculty	Staff	Comm Std	Res Std
2151 Van Ness Ave (ES-6)	518	44	1	3	34	6
491 Post Street (ES-23)	3,153	268	5	15	211	37
950 Van Ness Avenue (ES-10)	36	9	N/A	N/A	N/A	N/A

Source: AAU IMP, 2015

PTE=External Person Trips

Assumes 26% faculty and 74% staff split and 85% commuter students and 15% residential students split.

Assumes the peak number of students and faculty/staff make one round trip (two one-way) during the PM peak hour. Daily PTE is estiamted to be 11.7 (53.65/4.56) times the PM peak hour PTE.

For 950 Van Ness Avenue, it is assumed that the 9 employees generate 9 inbound trips in the AM, 9 round trips (18 one-way trips) during the midday, and 9 oubound trips in the PM, for a total of 36 trips a day.

Table 4 - PM Peak Hour Trip Generation by Mode

2151 Van Ness Avenue (Outside Market)										
Mode Split	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	IB	OB	VT
Faculty	20%	4%	57%	1%	2%	16%	100%	46%	54%	
Staff	20%	4%	57%	1%	2%	16%	100%	8%	92%	
Commuter Students	14%	6%	56%	11%	3%	10%	100%	46%	54%	
Residential Students	0%	0%	5%	57%	4%	34%	100%	46%	54%	
Faculty	0	0	1	0	0	0	1	0	1	0
Staff	1	0	2	0	0	0	3	0	3	1
Commuter Students	5	2	19	4	1	3	34	16	18	6
Residential Students	0	0	0	3	0	2	6	3	3	0
Total	6	2	22	7	1	6	44	19	25	7
491 Post Street (Near Market)										
Mode Split	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	IB	OB	VT
Faculty	10%	6%	57%	0%	9%	18%	100%	46%	54%	
Staff	10%	6%	57%	0%	9%	18%	100%	8%	92%	
Commuter Students	10%	0%	45%	16%	1%	28%	100%	46%	54%	
Residential Students	0%	0%	5%	57%	4%	34%	100%	46%	54%	
Faculty	1	0	3	0	0	1	5	2	3	1
Staff	1	1	8	0	1	3	15	1	14	2
Commuter Students	21	0	95	34	2	59	211	97	114	21
Residential Students	0	0	2	21	1	13	37	17	20	0
Total	23	1	108	55	5	75	268	118	150	24
950 Van Ness Avenue										
Mode Split	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	IB	OB	VT
Employees (Mechanics, etc)	19%	18%	50%	0%	4%	9%	100%	0%	100%	
Employees (Mechanics, etc)	2	2	5	0	0	1	9	0	9	3

VOR= 2.25 for 2151 VN and 491 Post sites 2.00 for 950 VN sites

Mode splits for 2151 Van Ness Avenue and 491 Post Street sites are based on 2010 survey results; Mode splits for 950 Van Ness Avenue site is based on Table E-18 (Work Trips to VN Commercial District) of SF Guidelines.

Table 5 - PM Peak Hour Trip Generation by Mode by Direction

AAU Building	Inbound Trips								Outbound Trips								Total Person Trips	Total Vehicle Trips	
	Person Trips							Vehicle Trips	Person Trips							Vehicle Trips			
	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total				
2151 Van Ness Avenue (ES-6)	2	1	9	3	1	3	19	3	3	1	12	4	1	3	25	4	44	7	65%
491 Post Street (ES-23)	10	0	47	25	2	34	118	10	13	1	62	30	3	42	150	13	268	24	-56%
950 Van Ness Avenue (ES-10)	0	0	0	0	0	0	0	0	2	2	5	0	0	1	9	3	9	3	
Trip generation estimates based on square footage (for comparison):																			
2151 Van Ness Avenue (ES-6)	6	2	24	8	1	7	49	7	12	4	40	9	2	11	78	13	127	21	
491 Post Street (ES-23)	6	0	27	13	2	18	66	6	10	2	48	15	4	26	106	11	172	17	
950 Van Ness Avenue (ES-10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 6 - PM Peak Hour Transit Demand by Direction

Population	2151 Van Ness		491 Post		950 Van Ness	
	IN	OUT	IN	OUT	IN	OUT
Faculty/Staff	0	2	2	9	0	5
Commuter Students	9	10	44	51	0	0
Residential Students	0	0	1	1	0	0
Total (In/Out)	9	12	47	62	0	5
Total	22		108		5	

INBOUND

Mode Split	Drive	Carpool	Transit	Near Market Shuttle	Bike	Walk	Total
Faculty	10%	6%	57%	0%	9%	18%	100%
Staff	10%	6%	57%	0%	9%	18%	100%
Commuter Students	10%	0%	45%	16%	1%	28%	100%
Residential Students	0%	0%	5%	57%	4%	34%	100%
Vehicle Occupancy Rate	2.25						

NEAR MARKET

12	860 Sutter Street (ES-13)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	27	2	16	**48**	0
	Total	0	0	2	27	2	16	**48**	0

13	817-831 Sutter Street (ES-14)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	3	35	2	21	**61**	0
	Total	0	0	3	35	2	21	**61**	0

14	1069 Pine Street (ES-16)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	1	0	0	1	**2**	0
	Residential Students	0	0	0	0	0	0	**0**	0
	Total	0	0	1	1	0	1	**3**	0

15	1055 Pine Street (ES-17)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	25	2	15	**44**	0
	Total	0	0	2	25	2	15	**44**	0

16	620 Sutter Street (ES-20)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	20	1	12	**35**	0
	Total	0	0	2	20	1	12	**35**	0

17	491 Post Street (ES-23)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	1	0	0	0	**2**	0
	Staff	0	0	1	0	0	0	**1**	0
	Commuter Students	10	0	44	16	1	27	**97**	10
	Residential Students	0	0	1	10	1	6	**17**	0
	Total	10	0	47	25	2	34	**118**	10

18	77 New Montgomery Street (ES-27	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	2	1	12	0	2	4	**22**	3
	Staff	1	1	6	0	1	2	**11**	1
	Commuter Students	19	0	86	31	2	54	**192**	19
	Residential Students	0	0	2	19	1	12	**34**	0
	Total	22	2	107	50	6	71	**258**	23

19	180 New Montgomery Street (ES-2	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	2	16	0	3	5	**28**	4
	Staff	1	1	8	0	1	2	**14**	2
	Commuter Students	25	0	111	40	2	69	**247**	25
	Residential Students	0	0	2	25	2	15	**44**	0
	Total	29	3	137	65	8	92	**333**	30

NEAR MARKET (INBOUND)

Total	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	5	3	30	0	5	9	52	7
Staff	3	2	15	0	2	5	26	3
Commuter Students	54	0	242	86	5	151	539	54
Residential Students	0	0	14	162	11	96	283	0
Total	62	5	301	248	24	261	900	64

INBOUND

Mode Split	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total
	Outside Market						
Faculty	20%	4%	57%	1%	2%	16%	100%
Staff	20%	4%	57%	1%	2%	16%	100%
Commuter Students	14%	6%	56%	11%	3%	10%	100%
Residential Students	0%	0%	5%	57%	4%	34%	100%
Vehicle Occupancy Rate	2.25						

OUTSIDE MARKET

1	2340 Stockton Street (ES-1)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	1	0	4	0	0	1	**7**	1
	Staff	1	0	2	0	0	1	**3**	1
	Commuter Students	8	3	32	6	2	6	**58**	10
	Residential Students	0	0	1	6	0	4	**10**	0
	Total	10	4	39	12	2	11	**78**	12

2	2295 Taylor Street (ES-2)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	1	0	2	0	0	0	**3**	1
	Staff	0	0	1	0	0	0	**1**	0
	Commuter Students	4	2	15	3	1	3	**26**	4
	Residential Students	0	0	0	3	0	2	**5**	0
	Total	5	2	17	6	1	5	**35**	5

3	1727 Lombard Street (ES-3)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	1	16	1	10	**28**	0
	Total	0	0	1	16	1	10	**28**	0

4	2211 Van Ness Avenue (ES-4)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	4	0	2	**6**	0
	Total	0	0	0	4	0	2	**6**	0

5	2209 Van Ness Avenue (ES-5)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	6	0	3	**10**	0
	Total	0	0	0	6	0	3	**10**	0

6	2151 Van Ness Avenue (ES-6)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	2	1	9	2	0	2	**16**	3
	Residential Students	0	0	0	2	0	1	**3**	0
	Total	2	1	9	3	1	3	**19**	3

7	1849 Van Ness Avenue (ES-8)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	1	9	0	0	3	**16**	3
	Staff	2	0	4	0	0	1	**8**	2
	Commuter Students	20	8	79	15	4	14	**140**	23
	Residential Students	0	0	1	14	1	8	**25**	0
	Total	24	9	93	30	6	26	**189**	29

8	1916 Octavia Boulevard (ES-9)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	1	7	0	4	**12**	0
	Total	0	0	1	7	0	4	**12**	0

9	950 Van Ness Avenue (ES-10)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	0	0	0	**0**	0
	Total	0	0	0	0	0	0	**0**	0

10	1153 Bush Street (ES-11)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	5	0	3	**8**	0
	Total	0	0	0	5	0	3	**8**	0

11	1080 Bush Street (ES-12)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	17	1	10	**31**	0
	Total	0	0	2	17	1	10	**31**	0

20	58-60 Federal Street (ES-30)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	1	8	0	0	2	**15**	3
	Staff	1	0	4	0	0	1	**7**	2
	Commuter Students	18	8	73	14	4	13	**130**	22
	Residential Students	0	0	1	13	1	8	**23**	0
	Total	23	9	86	28	5	24	**174**	26

21	601 Brannan Street (ES-31)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	2	0	6	0	0	2	**11**	2
	Staff	1	0	3	0	0	1	**5**	1
	Commuter Students	13	6	54	11	3	10	**96**	16
	Residential Students	0	0	1	10	1	6	**17**	0
	Total	17	6	64	20	4	18	**129**	20

22	460 Townsend Street (ES-33)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	1	0	2	0	0	1	**4**	1
	Staff	0	0	1	0	0	0	**2**	0
	Commuter Students	5	2	19	4	1	3	**34**	6
	Residential Students	0	0	0	3	0	2	**6**	0
	Total	6	2	22	7	1	6	**45**	7

23	466 Townsend Street (ES-34)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	1	10	0	0	3	**17**	4
	Staff	2	0	5	0	0	1	**8**	2
	Commuter Students	21	9	83	16	4	15	**148**	25
	Residential Students	0	0	1	15	1	9	**26**	0
	Total	26	10	98	31	6	28	**199**	30

OUTSIDE MARKET (INBOUND)

Total	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	14	3	41	1	1	12	72	16
Staff	7	1	20	0	1	6	35	8
Commuter Students	91	39	362	71	19	65	647	108
Residential Students	0	0	10	120	8	71	210	0
Total	112	43	434	192	30	153	964	131

GRAND TOTAL (INBOUND)

	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	20	6	71	1	6	21	124	22
Staff	10	3	35	0	3	10	61	11
Commuter Students	144	39	605	157	25	215	1185	162
Residential Students	0	0	25	281	20	168	493	0
Total	174	48	735	439	54	414	1864	195

OUTBOUND							
Mode Split	Drive	Carpool	Transit	Near Market Shuttle	Bike	Walk	Total
Faculty	10%	6%	57%	0%	9%	18%	100%
Staff	10%	6%	57%	0%	9%	18%	100%
Commuter Students	10%	0%	45%	16%	1%	28%	100%
Residential Students	0%	0%	5%	57%	4%	34%	100%
Vehicle Occupancy Rate	2.25						

NEAR MARKET

		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
12	860 Sutter Street (ES-13)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	3	32	2	19	**56**	0
	Total	0	0	3	32	2	19	**56**	0
13	817-831 Sutter Street (ES-14)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	4	41	3	24	**72**	0
	Total	0	0	4	41	3	24	**72**	0
14	1069 Pine Street (ES-16)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	1	0	0	0	**2**	0
	Commuter Students	0	0	1	0	0	1	**3**	0
	Residential Students	0	0	0	0	0	0	**1**	0
	Total	0	0	2	1	0	1	**5**	1
15	1055 Pine Street (ES-17)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	3	29	2	17	**51**	0
	Total	0	0	3	29	2	17	**51**	0
16	620 Sutter Street (ES-20)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	23	2	14	**41**	0
	Total	0	0	2	23	2	14	**41**	0
17	491 Post Street (ES-23)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	2	0	0	1	**3**	0
	Staff	1	1	8	0	1	2	**14**	2
	Commuter Students	11	0	51	18	1	32	**114**	11
	Residential Students	0	0	1	11	1	7	**20**	0
	Total	13	1	62	30	3	42	**150**	13
18	77 New Montgomery Street (ES-27)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	2	15	0	2	5	**26**	3
	Staff	12	7	70	0	11	22	**123**	16
	Commuter Students	23	0	101	36	2	63	**225**	23
	Residential Students	0	0	2	23	2	14	**40**	0
	Total	37	9	188	59	17	103	**414**	41
19	180 New Montgomery Street (ES-28)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	2	19	0	3	6	**33**	4
	Staff	16	10	91	0	14	29	**159**	20
	Commuter Students	29	0	131	46	3	81	**290**	29
	Residential Students	0	0	3	29	2	18	**52**	0
	Total	48	12	242	76	22	133	**534**	53

NEAR MARKET (INBOUND)								
Total	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	6	4	35	0	6	11	62	8
Staff	30	18	169	0	27	54	297	38
Commuter Students	63	0	285	101	6	177	632	63
Residential Students	0	0	17	190	13	113	333	0
Total	99	22	506	291	52	355	1324	109

OUTBOUND

Mode Split	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total
	Outside Market						
Faculty	20%	4%	57%	1%	2%	16%	100%
Staff	20%	4%	57%	1%	2%	16%	100%
Commuter Students	14%	6%	56%	11%	3%	10%	100%
Residential Students	0%	0%	5%	57%	4%	34%	100%
Vehicle Occupancy Rate	2.25						

OUTSIDE MARKET

		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
1	2340 Stockton Street (ES-1)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	2	0	4	0	0	1	**8**	2
	Staff	7	1	21	0	1	6	**37**	8
	Commuter Students	10	4	38	7	2	7	**68**	11
	Residential Students	0	0	1	7	0	4	**12**	0
	Total	19	6	64	15	3	18	**125**	21
2	2295 Taylor Street (ES-2)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	1	0	2	0	0	1	**3**	1
	Staff	3	1	10	0	0	3	**17**	4
	Commuter Students	4	2	17	3	1	3	**31**	5
	Residential Students	0	0	0	3	0	2	**5**	0
	Total	8	3	29	7	2	8	**56**	9
3	1727 Lombard Street (ES-3)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	19	1	11	**33**	0
	Total	0	0	2	19	1	11	**33**	0
4	2211 Van Ness Avenue (ES-4)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	4	0	3	**8**	0
	Total	0	0	0	4	0	3	**8**	0
5	2209 Van Ness Avenue (ES-5)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	1	6	0	4	**11**	0
	Total	0	0	1	6	0	4	**11**	0
6	2151 Van Ness Avenue (ES-6)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**1**	0
	Staff	1	0	2	0	0	0	**3**	1
	Commuter Students	3	1	10	2	1	2	**18**	3
	Residential Students	0	0	0	2	0	1	**3**	0
	Total	3	1	12	4	1	3	**25**	4
7	1849 Van Ness Avenue (ES-8)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	4	1	11	0	0	3	**19**	4
	Staff	18	4	51	1	2	14	**90**	20
	Commuter Students	23	10	92	18	5	16	**165**	27
	Residential Students	0	0	1	17	1	10	**29**	0
	Total	45	14	156	36	8	44	**303**	51
8	1916 Octavia Boulevard (ES-9)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	1	8	1	5	**14**	0
	Total	0	0	1	8	1	5	**14**	0
9	950 Van Ness Avenue (ES-10)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	2	2	5	0	0	1	9	3
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	0	0	0	**0**	0
	Total	2	2	5	0	0	1	**9**	3
10	1153 Bush Street (ES-11)	**Drive**	**Carpool**	**Transit**	**Shuttle**	**Bike**	**Walk**	**Total**	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	0	5	0	3	**9**	0
	Total	0	0	0	5	0	3	**9**	0

		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
11	1080 Bush Street (ES-12)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	0	0	0	0	0	0	**0**	0
	Staff	0	0	0	0	0	0	**0**	0
	Commuter Students	0	0	0	0	0	0	**0**	0
	Residential Students	0	0	2	21	1	12	**36**	0
	Total	0	0	2	21	1	12	**36**	0
20	58-60 Federal Street (ES-30)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	1	10	0	0	3	**17**	4
	Staff	17	3	47	1	2	13	**83**	18
	Commuter Students	21	9	85	17	5	15	**152**	25
	Residential Students	0	0	1	15	1	9	**27**	0
	Total	41	13	144	33	8	40	**280**	47
21	601 Brannan Street (ES-31)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	3	1	7	0	0	2	**13**	3
	Staff	12	2	35	1	1	10	**62**	13
	Commuter Students	16	7	63	12	3	11	**113**	19
	Residential Students	0	0	1	11	1	7	**20**	0
	Total	31	10	106	25	6	30	**207**	35
22	460 Townsend Street (ES-33)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	1	0	3	0	0	1	**4**	1
	Staff	4	1	12	0	0	3	**22**	5
	Commuter Students	6	2	22	4	1	4	**40**	7
	Residential Students	0	0	0	4	0	2	**7**	0
	Total	11	3	37	9	2	11	**73**	12
23	466 Townsend Street (ES-34)	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
	Faculty	4	1	11	0	0	3	**20**	4
	Staff	19	4	54	1	2	15	**95**	21
	Commuter Students	24	10	97	19	5	17	**173**	29
	Residential Students	0	0	2	18	1	10	**31**	0
	Total	47	15	164	38	9	46	**318**	54

OUTSIDE MARKET (OUTBOUND)

Total	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	17	3	48	1	2	14	84	18
Staff	83	18	237	4	8	66	417	91
Commuter Students	106	46	425	84	23	76	759	127
Residential Students	0	0	12	140	10	84	246	0
Total	207	67	723	229	43	239	1507	236

GRAND TOTAL (OUTBOUND)

	Drive	Carpool	Transit	Shuttle	Bike	Walk	Total	VT
Faculty	23	7	83	1	7	25	146	26
Staff	113	36	407	4	35	120	714	129
Commuter Students	170	46	710	185	29	253	1391	190
Residential Students	0	0	29	330	23	197	579	0
Total	306	88	1228	520	95	594	2831	345

ES #	AAU Building	Near Market Street Corridor																	
		Inbound Trips								Outbound Trips								Total Person Trips	Total Vehicle Trips
		Person Trips							Vehicle Trips	Person Trips							Vehicle Trips		
		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total			
13	860 Sutter Street	0	0	2	27	2	16	48	0	0	0	3	32	2	19	56	0	104	0
14	817-831 Sutter Street	0	0	3	35	2	21	61	0	0	0	4	41	3	24	72	0	133	0
16	1069 Pine Street	0	0	1	1	0	1	3	0	0	0	2	1	0	1	5	1	9	1
17	1055 Pine Street	0	0	2	25	2	15	44	0	0	0	3	29	2	17	51	0	95	0
20	620 Sutter Street	0	0	2	20	1	12	35	0	0	0	2	23	2	14	41	0	76	0
23	491 Post Street	10	0	47	25	2	34	118	10	13	1	62	30	3	42	150	13	268	24
27	77 New Montgomery Street	22	2	107	50	6	71	258	23	37	9	188	59	17	103	414	41	673	65
28	180 New Montgomery Street	29	3	137	65	8	92	333	30	48	12	242	76	22	133	534	53	867	83
Subtotal		62	5	301	248	24	261	900	64	99	22	506	291	52	355	1,324	109	2,224	172
ES #	AAU Building	Outside Market Street Corridor																	
		Inbound Trips								Outbound Trips								Total Person Trips	Total Vehicle Trips
		Person Trips							Vehicle Trips	Person Trips							Vehicle Trips		
		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total		Drive	Carpool	Transit	Shuttle	Bike	Walk	Total			
1	2340 Stockton Street	10	4	39	12	2	11	78	12	19	6	64	15	3	18	125	21	203	33
2	2295 Taylor Street	5	2	17	6	1	5	35	5	8	3	29	7	2	8	56	9	91	15
3	1727 Lombard Street	0	0	1	16	1	10	28	0	0	0	2	19	1	11	33	0	61	0
4	2211 Van Ness Avenue	0	0	0	4	0	2	6	0	0	0	0	4	0	3	8	0	14	0
5	2209 Van Ness Ave	0	0	0	6	0	3	10	0	0	0	1	6	0	4	11	0	21	0
6	2151 Van Ness Avenue	2	1	9	3	1	3	19	3	3	1	12	4	1	3	25	4	44	7
8	1849 Van Ness Avenue	24	9	93	30	6	26	189	29	45	14	156	36	8	44	303	51	492	80
9	1916 Octavia Boulevard	0	0	1	7	0	4	12	0	0	0	1	8	1	5	14	0	26	0
10	950 Van Ness Avenue	0	0	0	0	0	0	0	0	2	2	5	0	0	1	9	3	9	3
11	1153 Bush Street	0	0	0	5	0	3	8	0	0	0	0	5	0	3	9	0	18	0
12	1080 Bush Street	0	0	2	17	1	10	31	0	0	0	2	21	1	12	36	0	67	0
30	58-60 Federal Street	23	9	86	28	5	24	174	26	41	13	144	33	8	40	280	47	454	74
31	601 Brannan Street	17	6	64	20	4	18	129	20	31	10	106	25	6	30	207	35	336	54
33	460 Townsend Street	6	2	22	7	1	6	45	7	11	3	37	9	2	11	73	12	118	19
34	466 Townsend Street	26	10	98	31	6	28	199	30	47	15	164	38	9	46	318	54	517	84
Subtotal		112	43	434	192	30	153	964	131	207	67	723	229	43	239	1,507	236	2,471	368
Grand Total		174	48	735	439	54	414	1,864	195	306	88	1,228	520	95	594	2,831	345	4,695	540
Notes:																			
Reflects updated trip generation for 491 Post Street and 2151 Van Ness Avenue sites (in blue).																			

Appendix TR-G: Transit Screenline Analysis

Transit Trip Generation

	860 Sutter		817-831 Sutter		1069 Pine		1055 Pine		620 Sutter		491 Post St		77 NM		180 NM		2340 Stockton		2295 Taylor		1727 Lombard		2211 VN		2209 VN		2151 VN		1849 VN		950 VN*		1916 Octavia		1153 Bush		1080 Bush		58-60 Federal		601 Brannan		460 Twnd		466 Twnd		Total	
Population	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Faculty/Staff	0	0	0	0	1	1	0	0	0	0	2	9	19	85	24	110	6	25	3	11	0	0	0	0	0	0	0	2	13	62	0	5	0	0	0	0	0	0	12	57	9	42	3	15	14	65	106	489
Commuter Students	0	0	0	0	1	1	0	0	0	0	44	51	86	101	111	130	32	38	15	17	0	0	0	0	0	0	9	10	79	93	0	0	0	0	0	0	0	0	73	86	54	63	19	23	83	97	605	711
Residential Students	2	3	3	4	0	0	2	3	2	2	1	1	2	2	2	3	1	1	0	0	1	2	0	1	0	1	0	0	1	1	0	0	0	1	0	1	1	2	1	1	1	1	0	0	1	2	21	32
Total (In/Out)	2	3	3	4	2	2	2	3	2	2	47	62	107	188	137	243	39	64	18	28	1	2	0	1	0	1	9	12	93	156	0	5	0	1	0	1	1	2	86	144	64	106	22	38	98	164	733	1231
Total	5		7		4		5		4		108		295		380		103		46		3		1		1		22		249		5		1		1		3		230		170		60		262		1964	

Transit Trip Distribution

		860 Sutter		817-831 Sutter		1069 Pine		1055 Pine		620 Sutter		491 Post St		77 NM		180 NM		2340 Stockton		2295 Taylor St		1727 Lombard		2211 VN		2209 VN		51 Van Ness A		1849 VN		950 VN*		1916 Octavia		1153 Bush		1080 Bush		58-60 Federal		601 Brannan		60 Townsend S		466 Twnd		Total	
	Faculty/Staff	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
SD1	10%	0	0	0	0	0	0	0	0	0	0	0	1	2	9	2	11	1	3	0	1	0	0	0	0	0	0	0	0	1	6	0	1	0	0	0	0	0	0	1	6	1	4	0	2	1	7	11	49
SD2	15%	0	0	0	0	0	0	0	0	0	0	0	1	3	13	4	17	1	4	0	2	0	0	0	0	0	0	0	0	2	9	0	1	0	0	0	0	0	0	2	9	1	6	0	2	2	10	16	73
SD3	15%	0	0	0	0	0	0	0	0	0	0	0	1	3	13	4	17	1	4	0	2	0	0	0	0	0	0	0	0	2	9	0	1	0	0	0	0	0	0	2	9	1	6	0	2	2	10	16	73
SD4	6%	0	0	0	0	0	0	0	0	0	0	0	1	1	5	1	7	0	2	0	1	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	1	3	1	3	0	1	1	4	6	29
C-3	1%	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	5
SB	12%	0	0	0	0	0	0	0	0	0	0	0	1	2	10	3	13	1	3	0	1	0	0	0	0	0	0	0	0	2	7	0	1	0	0	0	0	0	0	1	7	1	5	0	2	2	8	13	59
NB	10%	0	0	0	0	0	0	0	0	0	0	0	1	2	9	2	11	1	3	0	1	0	0	0	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	1	6	1	4	0	2	1	7	11	49
EB	31%	0	0	0	0	0	0	0	0	0	0	1	3	6	26	7	34	2	8	1	3	0	0	0	0	0	0	0	1	4	19	0	1	0	0	0	0	0	0	4	18	3	13	1	5	4	20	33	152
	Comm Student	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
SD1	22%	0	0	0	0	0	0	0	0	0	0	10	11	19	22	24	29	7	8	3	4	0	0	0	0	0	0	2	2	17	20	0	0	0	0	0	0	0	0	16	19	12	14	4	5	18	21	133	156
SD2	18%	0	0	0	0	0	0	0	0	0	0	8	9	15	18	20	23	6	7	3	3	0	0	0	0	0	0	2	2	14	17	0	0	0	0	0	0	0	0	13	15	10	11	3	4	15	17	109	128
SD3	10%	0	0	0	0	0	0	0	0	0	0	4	5	9	10	11	13	3	4	2	2	0	0	0	0	0	0	1	1	8	9	0	0	0	0	0	0	0	0	7	9	5	6	2	2	8	10	61	71
SD4	6%	0	0	0	0	0	0	0	0	0	0	3	3	5	6	7	8	2	2	1	1	0	0	0	0	0	0	1	1	5	6	0	0	0	0	0	0	0	0	4	5	3	4	1	1	5	6	36	43
C-3	3%	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	4	1	1	0	1	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	2	3	2	2	1	1	2	3	18	21
SB	14%	0	0	0	0	0	0	0	0	0	0	6	7	12	14	16	18	4	5	2	2	0	0	0	0	0	0	1	1	11	13	0	0	0	0	0	0	0	0	10	12	8	9	3	3	12	14	85	99
NB	5%	0	0	0	0	0	0	0	0	0	0	2	3	4	5	6	7	2	2	1	1	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	4	4	3	3	1	1	4	5	30	36
EB	22%	0	0	0	0	0	0	0	0	0	0	10	11	19	22	24	29	7	8	3	4	0	0	0	0	0	0	2	2	17	20	0	0	0	0	0	0	0	0	16	19	12	14	4	5	18	21	133	156
	Res Students	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
SD1	65%	1	2	2	3	0	0	1	2	1	1	1	1	1	1	1	2	1	1	0	0	1	1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	1	1	1	1	1	1	0	0	1	1	14	21
SD2	12%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4
SD3	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SD4	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C-3	23%	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	7
SB	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NB	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Corridor	860 Sutter		817-831 Sutter		1069 Pine		1055 Pine		620 Sutter		491 Post St		77 NM		180 NM		2340 Stockton		2295 Taylor St		1727 Lombard		2211 VN		2209 VN		51 Van Ness A		1849 VN		950 VN*		1916 Octavia		1153 Bush		1080 Bush		58-60 Federal		601 Brannan		60 Townsend S		466 Twnd		Total		
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
SD1	Northeast	1	2	2	3	0	0	1	2	1	1	10	13	22	32	28	42	8	12	4	5	1	1	0	1	0	1	2	3	19	27	0	1	0	1	0	1	1	1	18	25	13	19	4	7	20	29	157	226	
SD2	Northwest	0	0	0	0	0	0	0	0	0	0	8	11	19	31	24	40	7	11	3	5	0	0	0	0	0	0	2	2	16	26	0	1	0	0	0	0	0	0	15	24	11	18	4	6	17	27	128	205	
SD3	Southeast	0	0	0	0	0	0	0	0	0	0	5	7	11	23	15	30	4	8	2	3	0	0	0	0	0	0	1	1	10	19	0	1	0	0	0	0	0	0	9	17	7	13	2	5	10	19	77	144	
SD4	Southwest	0	0	0	0	0	0	0	0	0	0	3	4	6	11	8	14	2	4	1	2	0	0	0	0	0	0	1	1	6	9	0	0	0	0	0	0	0	0	5	9	4	6	1	2	6	10	43	72	
C-3	Northeast	0	1	1	1	0	0	0	1	0	0	2	2	3	4	4	6	1	2	0	1	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	3	3	2	3	1	1	3	4	24	34	
SB	South Bay	0	0	0	0	0	0	0	0	0	0	6	8	14	24	18	31	5	8	2	4	0	0	0	0	0	0	1	2	13	20	0	1	0	0	0	0	0	0	12	19	9	14	3	5	13	21	98	158	
NB	North Bay	0	0	0	0	0	0	0	0	0	0	2	3	6	14	8	18	2	4	1	2	0	0	0	0	0	0	0	1	5	11	0	0	0	0	0	0	0	0	5	10	4	7	1	3	6	11	41	84	
EB	East Bay	0	0	0	0	1	1	0	0	0	0	10	14	25	49	32	63	9	16	4	7	0	0	0	0	0	0	2	3	21	40	0	1	0	0	0	0	0	0	20	37	15	27	5	10	23	41	166	308	
		2	3	3	4	2	2	2	3	2	2	47	62	107	188	137	243	39	64	18	28	1	2	0	1	0	1	9	12	93	156	0	5	0	1	0	1	1	2	86	144	64	106	22	38	98	164	733	1231	1964
			2		3		2		2		2		59		177		228		60		27		1		0		0		12		147		4		0		0		1		136		100		36		154		1153	

*Distribution for 950 Van Ness Avenue site is based on Table E-18 of SF Guidelines.

Transit Trip Assignment

SFMTA Screenline

	Existing Ridership	Percent	860 Sutter	817 Sutter	1069 Pine	1055 Pine	620 Sutter	491 Post	77 NM	180 NM	2340 Stkn	2295 Tylr	1727 Lmd	2211 VN	2209 VN	2151 VN	1849 VN	950 VN	1916 Octavia	1153 Bush	1080 Bush	58-60 Fed	601 Brann	460 Twnd	466 Twnd	Total
Northeast																										
Kearny/Stockton Corridor	2,158	79%	1	2	0	1	1	9	20	25	8	3	1	0	0	2	17	0	0	0	1	16	12	4	18	144
All Other Lines	570	21%	0	1	0	0	0	2	5	7	2	1	0	0	0	0	5	0	0	0	0	4	3	1	5	38
Subtotal	2,728	100%	2	3	0	2	2	12	25	32	10	4	1	0	0	2	22	0	0	0	1	20	15	5	23	181
Northwest																										
Geary Corridor	1,814	35%	0	0	0	0	0	4	11	14	4	2	0	0	0	1	9	0	0	0	0	8	6	2	9	71
California	1,366	26%	0	0	0	0	0	3	8	10	3	1	0	0	0	1	7	0	0	0	0	6	5	2	7	53
Sutter/Clement	470	9%	0	0	0	0	0	1	3	4	1	0	0	0	0	0	2	0	0	0	0	2	2	1	2	18
Fulton/Hayes	965	18%	0	0	0	0	0	2	6	7	2	1	0	0	0	0	5	0	0	0	0	4	3	1	5	38
Balboa	637	12%	0	0	0	0	0	1	4	5	1	1	0	0	0	0	3	0	0	0	0	3	2	1	3	25
Subtotal	5,252	100%	0	0	0	0	0	11	31	40	11	5	0	0	0	2	26	1	0	0	0	24	18	6	27	205
Southeast																										
Third Street	550	12%	0	0	0	0	0	1	3	4	1	0	0	0	0	0	2	0	0	0	0	2	2	1	2	18
Mission Street	1,529	34%	0	0	0	0	0	2	8	10	3	1	0	0	0	0	6	0	0	0	0	6	4	2	7	50
San Burno/Bayshore	1,320	30%	0	0	0	0	0	2	7	9	2	1	0	0	0	0	6	0	0	0	0	5	4	1	6	43
All Other Lines	1,034	23%	0	0	0	0	0	2	5	7	2	1	0	0	0	0	4	0	0	0	0	4	3	1	5	34
Subtotal	4,433	100%	0	0	0	0	0	7	23	30	8	3	0	0	0	1	19	1	0	0	0	17	13	5	19	144
Southwest																										
Subway Lines	4,747	77%	0	0	0	0	0	3	9	11	3	1	0	0	0	1	7	0	0	0	0	7	5	2	8	56
Haight/Noriega	1,105	18%	0	0	0	0	0	1	2	3	1	0	0	0	0	0	2	0	0	0	0	2	1	0	2	13
All Other Lines	276	5%	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Subtotal	6,128	100%	0	0	0	0	0	4	11	14	4	2	0	0	0	1	9	0	0	0	0	9	6	2	10	72
Total All Muni Screenlines	18,541		2	3	1	2	2	33	91	116	32	14	1	0	0	7	76	2	0	0	1	70	52	18	80	603

Regional Screenline

	Existing Ridership	Percent	860 Sutter	817 Sutter	1069 Pine	1055 Pine	620 Sutter	491 Post	77 NM	180 NM	2340 Stkn	2295 Tylr	1727 Lmd	2211 VN	2209 VN	2151 VN	1849 VN	950 VN	1916 Octavia	1153 Bush	1080 Bush	58-60 Fed	601 Brann	460 Twnd	466 Twnd	Total
EAST BAY																										
BART	19,716	87%	0	0	0	0	0	12	42	54	14	6	0	0	0	2	34	1	0	0	0	32	23	8	36	266
AC Transit	2,256	10%	0	0	0	0	0	1	5	6	2	1	0	0	0	0	4	0	0	0	0	4	3	1	4	30
Ferries	805	4%	0	0	0	0	0	1	2	2	1	0	0	0	0	0	1	0	0	0	0	1	1	0	1	11
Subtotal	22,777	100%	0	0	1	0	0	14	49	63	16	7	0	0	0	3	40	1	0	0	0	37	27	10	41	307
NORTH BAY																										
GGT Buses	1,384	59%	0	0	0	0	0	2	8	10	3	1	0	0	0	0	6	0	0	0	0	6	4	2	7	50
GGT Ferries	968	41%	0	0	0	0	0	1	6	7	2	1	0	0	0	0	4	0	0	0	0	4	3	1	5	35
Subtotal	2,352	100%	0	0	0	0	0	3	14	18	4	2	0	0	0	1	11	0	0	0	0	10	7	3	11	84
SOUTH BAY																										
BART	10,682	81%	0	0	0	0	0	7	20	25	7	3	0	0	0	1	17	1	0	0	0	15	11	4	17	128
CALTRAIN	2,377	18%	0	0	0	0	0	1	4	6	1	1	0	0	0	0	4	0	0	0	0	3	2	1	4	29
SAMTRANS	141	1%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Subtotal	13,200	100%	0	0	0	0	0	8	24	31	8	4	0	0	0	2	20	1	0	0	0	19	14	5	21	158
Total All Regional Screenlines	38,330		0	0	1	0	0	26	86	112	29	13	0	0	0	5	71	2	0	0	0	65	48	17	74	550
			2	3	2	2	2	59	177	228	60	27	1	0	0	12	147	4	0	0	1	136	100	36	154	1153

Appendix TR-H: Loading Demand Analysis

AAU Loading Demand Estimate

No.	Site Location	Use Type	GSF	Daily Truck Trip Rates/1,000 SQ FT	Daily	Avg Hour	Pk Hour
1	2340 Stockton Street (ES-1)	Institutional	44,530	0.10	4	0.2	0.3
2	2295 Taylor Street (ES-2)	Institutional	20,000	0.10	2	0.1	0.1
3	1727 Lombard Street (ES-3)	Residential	16,371	0.03	0	0.0	0.0
4	2211 Van Ness Avenue (ES-4)	Residential	5,076	0.03	0	0.0	0.0
5	2209 Van Ness Avenue (ES-5)	Residential	11,897	0.03	0	0.0	0.0
6	2151 Van Ness Avenue (ES-6)	Institutional	27,912	0.10	3	0.1	0.2
7	1849 Van Ness Avenue (ES-8)	Institutional	107,908	0.10	11	0.5	0.6
8	1916 Octavia Boulevard (ES-9)	Residential	13,171	0.03	0	0.0	0.0
9	950 Van Ness Avenue (ES-10)	Other	50,700	0.00	0	0.0	0.0
10	1153 Bush Street (ES-11)	Residential	10,456	0.03	0	0.0	0.0
11	1080 Bush Street (ES-12)	Residential	24,528	0.03	1	0.0	0.0
12	860 Sutter Street (ES-13)	Residential	35,292	0.03	1	0.0	0.1
13	817-831 Sutter Street (ES-14)	Residential	51,990	0.03	2	0.1	0.1
14	1069 Pine Street (ES-16)	Residential	1,875	0.03	0	0.0	0.0
15	1055 Pine Street (ES-17)	Residential	36,213	0.03	1	0.1	0.1
16	620 Sutter Street (ES-20)	Residential	67,775	0.03	2	0.1	0.1
17	491 Post Street (ES-23)	Institutional	37,730	0.10	4	0.2	0.2
18	77 New Montgomery Street (ES-27)	Institutional	147,509	0.10	15	0.7	0.9
19	180 New Montgomery Street (ES-28)	Institutional	190,066	0.10	19	0.9	1.1
20	58-60 Federal Street (ES-30)	Institutional	99,552	0.10	10	0.5	0.6
21	601 Brannan Street (ES-31)	Institutional	73,666	0.10	7	0.3	0.4
22	460 Townsend Street (ES-33)	Institutional	25,920	0.10	3	0.1	0.2
23	466 Townsend Street (ES-34)	Institutional	113,436	0.10	11	0.5	0.7
Total			1,213,573		97	4	6

Assumptions:

General Loading Demand Equations

Daily Trips = (GSF / 1,000) * R

Average Hour = (GSF / 1,000) * R / 9 / 2.4

Peak Hour = (GSF / 1,000) * (R * 1.25) / 9 / 2.4

Table H-1 Transportation Guidelines

Residential	R = .03
Institutional	R = .10
Office	R = .21
Warehousing	R = .46

Appendix TR-I: Parking Demand Analysis

AAU Parking Demand Estimate (Institutional Buildings Only)

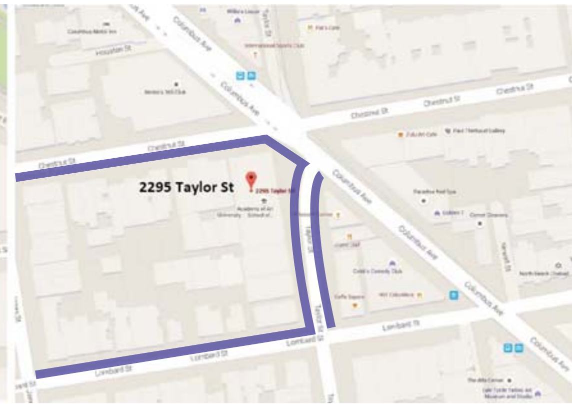
			Existing Uses (GSF)			Faculty and Staff													Commuter Students							Summary			
No.	Site Location	Area	Institutional	Residential	Other	No. of Faculty & Staff	Faculty & Staff on campus	% Drive Alone	% Carpool	VOR for Carpool	LT Parking Demand	Daily Turnover Rate	F/S Parking Demand	No. of Visitors	% Drive	VOR	Daily Turnover Rate	Visitor Parking Demand	No. of Students	Commuter students on campus	% Drive Alone	% Carpool	VOR for Carpool	Daily Turnover Rate	Comm Std Parking Demand	Faculty/ Staff	Visitor	Commuter Students	Total
1	2340 Stockton Street (ES-1)	Outside Market	44,530			119	71	20%	4%	2.25	16	4.0	4	14	36%	2.37	5.5	0	506	258	14%	6%	2.25	4.0	11	4	0	11	15
2	2295 Taylor Street (ES-2)	Outside Market	20,000			38	23	20%	4%	2.25	5	4.0	1	5	36%	2.37	5.5	0	219	112	14%	6%	2.25	4.0	5	1	0	5	6
3	1727 Lombard Street (ES-3)	Outside Market		16,371		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
4	2211 Van Ness Avenue (ES-4)	Outside Market		5,076		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
5	2209 Van Ness Avenue (ES-5)	Outside Market		11,897		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
6	2151 Van Ness Avenue (ES-6)	Outside Market			27,912	6	4	20%	4%	2.25	1	4.0	0	1	36%	2.37	5.5	0	88	45	14%	6%	2.25	4.0	2	0	0	2	2
7	1849 Van Ness Avenue (ES-8)	Outside Market	107,908			52	31	20%	4%	2.25	7	4.0	2	6	36%	2.37	5.5	0	467	238	14%	6%	2.25	4.0	10	2	0	10	12
8	1916 Octavia Boulevard (ES-9)	Outside Market		13,171		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
9	950 Van Ness Avenue (ES-10)	Outside Market			50,700	0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
10	1153 Bush Street (ES-11)	Outside Market		10,456		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
11	1080 Bush Street (ES-12)	Outside Market		24,528		0	0	20%	4%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	14%	6%	2.25	4.0	0	0	0	0	0
12	860 Sutter Street (ES-13)	Near Market		35,292		0	0	10%	6%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	10%	0%	2.25	4.0	0	0	0	0	0
13	817-831 Sutter Street (ES-14)	Near Market		51,990		0	0	10%	6%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	10%	0%	2.25	4.0	0	0	0	0	0
14	1069 Pine Street (ES-16)	Near Market			1,875	0	0	10%	6%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	10%	0%	2.25	4.0	0	0	0	0	0
15	1055 Pine Street (ES-17)	Near Market		36,213		0	0	10%	6%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	10%	0%	2.25	4.0	0	0	0	0	0
16	620 Sutter Street (ES-20)	Near Market		67,775		0	0	10%	6%	2.25	0	4.0	0	0	36%	2.37	5.5	0	0	0	10%	0%	2.25	4.0	0	0	0	0	0
17	491 Post Street (ES-23)	Near Market	37,730			95	57	10%	6%	2.25	7	4.0	2	11	36%	2.37	5.5	0	960	489	10%	0%	2.25	4.0	12	2	0	12	14
18	77 New Montgomery Street (ES-27)	Near Market	147,509			109	65	10%	6%	2.25	8	4.0	2	13	36%	2.37	5.5	0	1,038	529	10%	0%	2.25	4.0	13	2	0	13	16
19	180 New Montgomery Street (ES-28)	Near Market	190,066			720	432	10%	6%	2.25	55	4.0	14	86	36%	2.37	5.5	2	2,881	1469	10%	0%	2.25	4.0	37	14	2	37	53
20	58-60 Federal Street (ES-30)	Outside Market	99,552			120	72	20%	4%	2.25	16	4.0	4	14	36%	2.37	5.5	0	1,349	688	14%	6%	2.25	4.0	29	4	0	29	33
21	601 Brannan Street (ES-31)	Outside Market	73,666			124	74	20%	4%	2.25	16	4.0	4	15	36%	2.37	5.5	0	945	482	14%	6%	2.25	4.0	20	4	0	20	25
22	460 Townsend Street (ES-33)	Outside Market	25,920			11	7	20%	4%	2.25	1	4.0	0	1	36%	2.37	5.5	0	145	74	14%	6%	2.25	4.0	3	0	0	3	3
23	466 Townsend Street (ES-34)	Outside Market	113,436			208	125	20%	4%	2.25	27	4.0	7	25	36%	2.37	5.5	1	994	507	14%	6%	2.25	4.0	21	7	1	21	29
Total			860,317	272,769	80,487	1,602	961				159		40	192				5	9,591	4,892					162	40	5	162	207

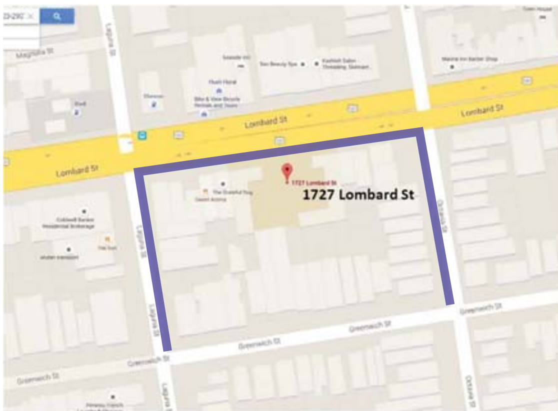
Assumptions:

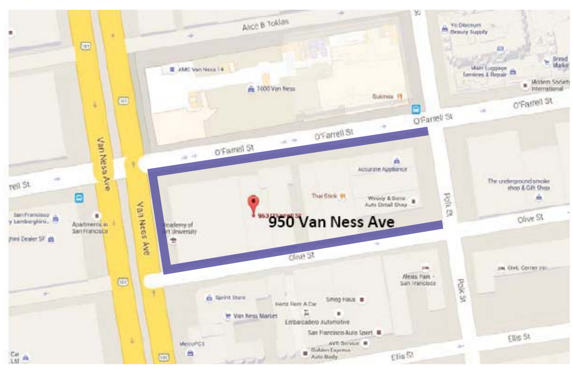
60% Faculty & Staff on campus (work trips)
20% Visitor ratio to work trips
60% Studetns on campus
85% Commuter students

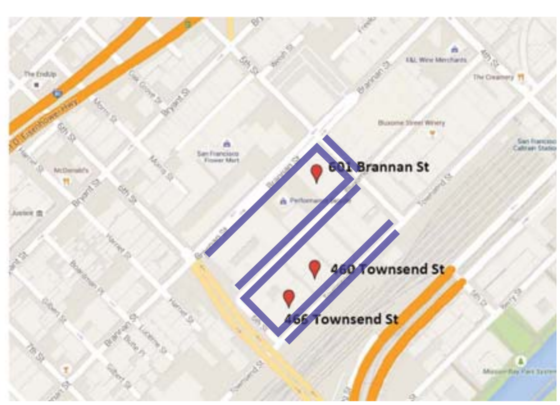
Appendix TR-J: Parking Survey Information

AAU ESTM - Proposed Parking and Loading Study Area









Map 1

Street	From	To	Side	Parking									
				Metered Supply			Nonmetered Supply			Total	Illegal Activity		
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other	
Stockton St	Beach St	North Point	East	2	0	0	0	0	0	2	0	0	
			West	0	0	0	0	0	0	0	0	0	Buss Terminal Entrance - no parking
Beach St	Stockton St	Grant Ave	South	0	0	0	0	0	0	0	0	0	No parking anywhere
North Point St	Stockton St	Grant Ave	North	12	0	0	0	0	0	11	0	0	
Total				14	0	0	0	0	0	13	0	0	

Street	From	To	Side	Freight Loading (Yellow)					
				Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity		
							Double Park	Other	
Stockton St	Beach St	North Point	East	0	0	0	0	0	
			West	0	0	0	0	0	Buss Terminal Entrance - no parking
Beach St	Stockton St	Grant Ave	South	0	0	0	0	0	No parking anywhere
North Point St	Stockton St	Grant Ave	North	0	0	0	0	0	

Street	From	To	Side	Passenger Loading (White)				
				Length	Activity Level	Illegal Activity		
						Double Park	Other	
Stockton St	Beach St	North Point	East	94 ft	Low (1)	0	0	
			West	0	0	0	0	Buss Terminal Entrance - no parking
Beach St	Stockton St	Grant Ave	South	0	0	0	0	No parking anywhere
North Point St	Stockton St	Grant Ave	North	65 ft	Low (0)	0	0	3 parking meters - no striping

Map 2

Street	From	To	Side	Parking								
				Metered Supply			Nonmetered Supply			Total	Illegal Activity	
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other
Chestnut St	Jones St	Taylor St	South	0	0	0	11	0	0	8	0	2
Taylor St	Chestnut St	Lombard St	West	0	0	0	10	0	0	8	0	0
			East	0	0	0	8	0	0	9	0	1
Lombard St	Jones St	Taylor St	North	0	0	0	15	0	0	10	0	0
Total				0	0	0	44	0	0	35	0	3

Street	From	To	Side	Freight Loading (Yellow)				
				Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity	
							Double Park	Other
Chestnut St	Jones St	Taylor St	South	0	0	0	0	0
Taylor St	Chestnut St	Lombard St	West	0	0	0	0	0
			East	0	0	0	0	0
Lombard St	Jones St	Taylor St	North	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White)			
				Length	Activity Level	Illegal Activity	
						Double Park	Other
Chestnut St	Jones St	Taylor St	South	0	0	0	0
Taylor St	Chestnut St	Lombard St	West	0	0	0	0
			East	0	0	0	0
Lombard St	Jones St	Taylor St	North	0	0	0	0

Map 3

Street	From	To	Side	Parking: Metered Supply: General	Metered Supply: Green	Metered Supply: Blue	Nonmetered Supply: General	Nonmetered Supply: Green	Nonmetered Supply: Blue	Total Occupied	Illegal Activity: Double Park	Illegal Activity: Other
Lombard St	Laguna St	Octavia St	South	0	0	0	12	1	0	10	0	0
Laguna St	Lombard St	Greenwich St	East	0	0	0	7	0	0	7	0	1
Octavia St	Lombard St	Greenwich St	West	0	0	0	9	0	0	8	0	2
Total				0	0	0	28	1	0	25	0	3

Street	From	To	Side	Freight Loading (Yellow): Count (if metered)	Length (if unmetered	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other
Lombard St	Laguna St	Octavia St	South	0	0	0	0	0
Laguna St	Lombard St	Greenwich St	East	0	0	0	0	0
Octavia St	Lombard St	Greenwich St	West	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White): Length	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other
Lombard St	Laguna St	Octavia St	South	27 Ft 0	0	0	0
Laguna St	Lombard St	Greenwich St	East	0	0	0	0
Octavia St	Lombard St	Greenwich St	West	0	0	0	0

Map 4

Street	From	To	Side	Parking									
				Metered Supply			Nonmetered Supply			Total	Illegal Activity		
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other	
Vallejo St	Franklin St	Van Ness Ave	South	4	0	0	2	0	0	6	0	0	
Van Ness Ave	Vallejo St	Broadway	West	0	0	0	6	0	0	6	0	0	
Broadway	Franklin St	Van Ness Ave	North	0	0	0	13	1	0	13	0	0	Green very faded
			South	0	0	0	8	0	0	8	0	0	
Van Ness Ave	Broadway	Pacific Ave	West	5	0	0	0	0	0	5	0	1	
Pacific Ave	Franklin St	Van Ness Ave	North	3	3	0	10	0	0	14	0	0	
Total				12	3	0	39	1	0	52	0	1	
Washington St	Franklin St	Van Ness Ave	North	5	0	0	7	0	0	7	0	0	
			South	8	0	0	7	0	0	10	0	0	
Van Ness Ave	Washington St	Clay St	West	4	0	0	0	0	0	2	0	0	
Clay St	Franklin St	Van Ness Ave	North	0	0	0	14	0	0	14	0	0	
Total				17	0	0	28	0	0	33	0	0	

Street	From	To	Side	Freight Loading (Yellow)				
				Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity	
							Double Park	Other
Vallejo St	Franklin St	Van Ness Ave	South	0	0	0	0	0
Van Ness Ave	Vallejo St	Broadway	West	0	0	0	0	0
Broadway	Franklin St	Van Ness Ave	North	0	0	0	0	0
			South	0	0	0	0	0
Van Ness Ave	Broadway	Pacific Ave	West	1	0	0	0	0
Pacific Ave	Franklin St	Van Ness Ave	North	0	0	0	0	0
Washington St	Franklin St	Van Ness Ave	North	0	0	0	0	0
			South	0	0	0	0	0
Van Ness Ave	Washington St	Clay St	West	0	0	0	0	0
Clay St	Franklin St	Van Ness Ave	North	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White)				
					Activity	Illegal Activity		
				Length	Level	Double Park	Other	
Vallejo St	Franklin St	Van Ness Ave	South	20 ft	Low (0)	0	0	Metered
Van Ness Ave	Vallejo St	Broadway	West	60 ft	Low (0)	0	0	Not Metered
Broadway	Franklin St	Van Ness Ave	North	16 ft	Low (0)	0	0	Faded - Not metered
			South	146 ft	Low (0)	0	0	
Van Ness Ave	Broadway	Pacific Ave	West	20 ft	High (1)	0	0	
Pacific Ave	Franklin St	Van Ness Ave	North	20 ft	Low (0)	0	0	
Washington St	Franklin St	Van Ness Ave	North	0	0	0	0	
			South	0	0	0	0	
Van Ness Ave	Washington St	Clay St	West	66 ft	Low (0)	0	0	
Clay St	Franklin St	Van Ness Ave	North	0	0	0	0	

Map 5

Street	From	To	Side	Parking								
				Metered Supply			Nonmetered Supply			Total	Illegal Activity	
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other
Octavia St	Sacramento St	California St	West	0	0	0	8	0	0	8	0	0
			East	0	0	0	13	0	0	13	0	1
Sacramento St	Octavia St	Gough St	South	0	0	0	12	0	0	10	0	1
California St	Octavia St	Gough St	North	0	0	0	10	0	0	5	0	0
Total				0	0	0	43	0	0	36	0	2

Street	From	To	Side	Freight Loading (Yellow)				
				Count (if metered)	Length (if unmetered	Activity Level	Illegal Activity	
							Double Park	Other
Octavia St	Sacramento St	California St	West	0	0	0	0	0
			East	0	0	0	0	0
Sacramento St	Octavia St	Gough St	South	0	0	0	0	0
California St	Octavia St	Gough St	North	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White)			
				Length	Activity Level	Illegal Activity	
						Double Park	Other
Octavia St	Sacramento St	California St	West	0	0	0	0
			East	0	0	0	0
Sacramento St	Octavia St	Gough St	South	0	0	0	0
California St	Octavia St	Gough St	North	0	0	0	0

Map 6

Street	From	To	Side	Parking: Metered Supply: General	Metered Supply: Green	Metered Supply: Blue	Nonmetered Supply: General	Nonmetered Supply: Green	Nonmetered Supply: Blue	Total Occupied	Illegal Activity: Double Park	Illegal Activity: Other	
Olive St	Van Ness Ave	Polk St	South	16	0	0	0	0	0	8	0	2	Alley - no parking on North Side - collected parking on South Side
Van Ness Ave	Olive St	O'Farrell St	East	3	0	0	0	0	0	3	0	0	
O'Farrell St	Van Ness Ave	Polk St	South	10	1	0	0	0	0	9	0	0	
Total				29	1	0	0	0	0	20	0	2	

Street	From	To	Side	Freight Loading (Yellow): Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other	
Olive St	Van Ness Ave	Polk St	South	2	0	0	0	0	
Van Ness Ave	Olive St	O'Farrell St	East	0	0	0	0	0	
O'Farrell St	Van Ness Ave	Polk St	South	5	0	0	0	0	2 metered red spaces included in this count

`

Street	From	To	Side	Passenger Loading (White): Length	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other
Olive St	Van Ness Ave	Polk St	South	0	0	0	0
Van Ness Ave	Olive St	O'Farrell St	East	0	0	0	0
O'Farrell St	Van Ness Ave	Polk St	South	0	0	0	0

Map 7

Street	From	To	Side	Parking: Metered Supply: General	Metered Supply: Green	Metered Supply: Blue	Nonmetered Supply: General	Nonmetered Supply: Green	Nonmetered Supply: Blue	Total Occupied	Illegal Activity: Double Park	Illegal Activity: Other	
Hyde St	Bush St	Sutter St	East	12	0	0	0	0	0	12	0	0	
Bush St	Hyde St	Leavenworth St	North	9	0	0	0	0	0	9	0	2	
			South	10	0	0	0	0	0	10	0	0	
Leavenworth St	Pine St	Bush St	East	0	0	0	9	0	0	8	0	0	
Pine St	Leavenworth St	Jones St	South	0	0	0	16	0	0	6	0	0	
Jones St	Pine St	Bush St	West	0	0	0	13	0	0	13	0	0	2 red Spaces for Zip Cars
			East	0	0	0	12	0	0	11	0	0	1 parking space occupied by 4 motorcycles
Pine St	Jones St	Taylor St	North	0	0	0	16	0	0	10	0	0	
			South	0	0	0	15	0	0	12	0	0	
Taylor St	Pine St	Bush St	West	0	0	0	5	0	0	5	0	0	
Bush St	Leavenworth St	Jones St	North	0	2	0	9	0	0	8	0	1	
			South	0	0	0	16	0	0	13	0	0	
Leavenworth St	Bush St	Sutter St	West	0	0	0	12	0	0	12	0	0	
			East	0	0	0	11	0	0	8	0	0	
Sutter St	Hyde St	Leavenworth St	North	0	0	0	7	0	0	6	0	0	
Sutter St	Leavenworth St	Jones St	North	4	0	0	1	0	0	3	0	0	
			South	13	0	0	0	0	0	14	0	0	
Leavenworth St	Sutter St	Post St	East	0	0	0	10	0	0	11	0	0	
Jones St	Sutter St	Post St	West	7	0	0	0	0	0	5	0	1	
Jones St	Bush St	Sutter St	West	9	0	0	0	0	0	9	0	0	
Taylor St	Bush St	Sutter St	East	4	0	0	0	0	0	4	0	0	
Sutter St	Taylor St	Mason St	North	0	0	0	0	0	0	0	0	0	No Regular Parking
			South	0	0	0	0	0	0	0	0	0	No Regular Parking
Mason St	Bush St	Sutter St	West	9	0	0	0	0	0	9	0	1	
Post St	Mason St	Powell St	North	0	0	0	0	0	0	0	0	0	
			South	0	0	0	0	0	0	0	0	0	
Mason St	Post St	Geary St	East	0	0	0	0	0	0	0	0	0	
Powell St	Post St	Geary St	West	0	0	0	0	0	0	0	0	0	
Total				77	2	0	152	0	0	198	0	5	

Street	From	To	Side	Freight Loading (Yellow): Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other
Hyde St	Bush St	Sutter St	East	0	0	0	0	0
Bush St	Hyde St	Leavenworth St	North	0	0	0	0	0
			South	0	0	0	0	0
Leavenworth St	Pine St	Bush St	East	0	0	0	0	0
Pine St	Leavenworth St	Jones St	South	0	32 ft	0	0	0
Jones St	Pine St	Bush St	West	0	0	0	0	0
			East	0	0	0	0	0
Pine St	Jones St	Taylor St	North	0	0	0	0	0
			South	0	0	0	0	0
Taylor St	Pine St	Bush St	West	0	0	0	0	0
Bush St	Leavenworth St	Jones St	North	0	40 ft	Low (1)	0	0
			South	0	20 ft	Low (0)	0	0
Leavenworth St	Bush St	Sutter St	West	0	0	0	0	0
			East	0	0	0	0	0
Sutter St	Hyde St	Leavenworth St	North	0	53 ft	High (2)	0	0
Sutter St	Leavenworth St	Jones St	North	1	0	Low (0)	0	0
			South	1	0	Low (0)	0	0

Leavenworth St	Sutter St	Post St	East	0	0	0	0	0
Jones St	Sutter St	Post St	West	0	0	0	0	0
Jones St	Bush St	Sutter St	West	0	0	0	0	0
Taylor St	Bush St	Sutter St	East	3	0	0	0	0
Sutter St	Taylor St	Mason St	North	5	0	Moderate (3)	0	0
			South	6	0	Moderate (4)	0	0
Mason St	Bush St	Sutter St	West	1	0	High (1)	0	0
Post St	Mason St	Powell St	North	8	0	Moderate (3)	0	0
			South	1	0	Low (0)	0	2
Mason St	Post St	Geary St	East	9	0	High (7)	0	0
Powell St	Post St	Geary St	West	0	0	0	0	1

				Passenger Loading (White)				
						Illegal Activity		
Street	**From**	**To**	**Side**	Length	Activity Level	Double Park	Other	
Hyde St	Bush St	Sutter St	East	0	0	0	0	
Bush St	Hyde St	Leavenworth St	North	148 ft	Low (2)	0	0	
			South	0	0	0	0	
Leavenworth St	Pine St	Bush St	East	0	0	0	0	
Pine St	Leavenworth St	Jones St	South	0	0	0	0	
Jones St	Pine St	Bush St	West	0	0	0	0	
			East	0	0	0	0	
Pine St	Jones St	Taylor St	North	0	Low (0)	0	0	
			South	80 ft	Low (0)	0	0	
Taylor St	Pine St	Bush St	West	23 ft	High (1)	0	0	
Bush St	Leavenworth St	Jones St	North	50 ft	High (3)	0	0	
			South	0	0	0	0	
Leavenworth St	Bush St	Sutter St	West	0	0	0	0	
			East	0	0	0	0	
Sutter St	Hyde St	Leavenworth St	North	118 ft	Low (2)	0	0	
Sutter St	Leavenworth St	Jones St	North	78 ft	0	0	0	
			South	66 ft	0	0	0	
Leavenworth St	Sutter St	Post St	East	0	0	0	0	
Jones St	Sutter St	Post St	West	0	0	0	0	
Jones St	Bush St	Sutter St	West	0	0	0	0	
Taylor St	Bush St	Sutter St	East	0	0	0	0	
Sutter St	Taylor St	Mason St	North	153 ft	Low (0)	0	0	
			South	153 ft	Moderate (3)	0	0	
Mason St	Bush St	Sutter St	West	0	0	0	0	
Post St	Mason St	Powell St	North	175 ft	Moderate (4)	0	0	
			South	269 ft	Low (2)	0	0	2 x construction dumpsters - not counted as vehicles
Mason St	Post St	Geary St	East	46 ft	High (2)	0	0	2 metered spaces
Powell St	Post St	Geary St	West	234 ft	Moderate (6)	0	0	

Map 8

Street	From	To	Side	Parking								
				Metered Supply			Nonmetered Supply			Total	Illegal Activity	
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other
New Montgomery St	Jessie St	Mission St	East	0	0	0	0	0	0	0	0	0
			West	0	0	0	0	0	0	0	0	0
Jessie St	New Montgomery St	2nd St	South	3	0	0	0	0	0	2	0	0
Mission St	New Montgomery St	2nd St	North	3	0	0	0	0	0	2	0	0
Total				6	0	0	0	0	0	4	0	0

Natoma St	New Montgomery St	End	South	7	0	0	0	0	0	0	0	0	SW
Howard St	New Montgomery St	Hawthorne St	North	4	0	0	0	0	1	4	0	0	4 Red Zoned - Partime Bus zone
New Montgomery St	Natoma St	Howard St	East	6	0	0	0	0	0	1	0	0	
			West	0	0	0	0	0	0	0	0	0	
Total				17	0	0	0	0	1	5	0	0	

Street	From	To	Side	Freight Loading (Yellow)				
				Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity	
							Double Park	Other
New Montgomery St	Jessie St	Mission St	East	1	0	Low (0)	0	0
			West	3	0	Low (0)	0	0
Jessie St	New Montgomery St	2nd St	South	1	0	Low (0)	0	0
Mission St	New Montgomery St	2nd St	North	1	0	High (1)	0	0
Natoma St	New Montgomery St	End	South	2	0	Low (0)	0	0
Howard St	New Montgomery St	Hawthorne St	North	0	0	0	0	0
New Montgomery St	Natoma St	Howard St	East	0	0	0	0	0
			West	2	0	Low (0)	0	0

Street	From	To	Side	Passenger Loading (White)			
				Length	Activity Level	Illegal Activity	
						Double Park	Other
New Montgomery St	Jessie St	Mission St	East	44 ft	Low (0)	0	0
			West	20 ft	High (1)	0	0
Jessie St	New Montgomery St	2nd St	South	56 ft	Low (0)	0	0
Mission St	New Montgomery St	2nd St	North	0	0	0	0
Natoma St	New Montgomery St	End	South	0	0	0	0
Howard St	New Montgomery St	Hawthorne St	North	0	0	0	0
New Montgomery St	Natoma St	Howard St	East	40 ft	Low (1)	0	0
			West	103 ft	Low (0)	0	0

Map 9

Street	From	To	Side	Parking								
				Metered Supply			Nonmetered Supply			Total	Illegal Activity	
				General	Green	Blue	General	Green	Blue	Occupied	Double Park	Other
Brannon St	6th St	5th St	South	0	0	0	26	0	1	16	0	0
5th St	Brannan St	Bluxome St	East	3	0	1	0	0	1	4	0	0
			West	4	0	0	0	0	0	4	0	0
Bluxome St	6th St	5th St	North	0	0	0	0	0	0	0	0	0
			South	32	0	0	26	0	0	47	0	8
6th St	Bluxome St	Townsend St	East	8	0	0	0	0	0	8	0	0
Townsend St	6th St	5th St	North	20	0	0	0	0	0	20	0	0
			South	48	0	0	0	0	0	48	0	0
Total				115	0	1	52	0	2	147	0	8

No Parking Available

Street	From	To	Side	Freight Loading (Yellow)				
				Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity	
							Double Park	Other
Brannon St	6th St	5th St	South	0	0	0	0	0
5th St	Brannan St	Bluxome St	East	0	0	0	0	0
			West	0	0	0	0	0
Bluxome St	6th St	5th St	North	0	0	0	0	0
			South	0	0	0	0	0
6th St	Bluxome St	Townsend St	East	0	0	0	0	0
Townsend St	6th St	5th St	North	0	64 ft	Low (0)	0	0
			South	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White)			
				Length	Activity Level	Illegal Activity	
						Double Park	Other
Brannon St	6th St	5th St	South	20 ft	Low (0)	0	0
5th St	Brannan St	Bluxome St	East	0	0	0	0
			West	43 ft	Low (0)	0	0
Bluxome St	6th St	5th St	North	0	0	0	0
			South	25 ft	Low (0)	0	0
6th St	Bluxome St	Townsend St	East	0	0	0	0
Townsend St	6th St	5th St	North	112 ft	Low (1)	0	0
			South	0	0	0	0

Map 10

Street	From	To	Side	Parking: Metered Supply: General	Metered Supply: Green	Metered Supply: Blue	Nonmetered Supply: General	Nonmetered Supply: Green	Nonmetered Supply: Blue	Total Occupied	Illegal Activity: Double Park	Illegal Activity: Other	
Federal St	2nd St	Federal St	North	0	0	0	16 Reserved	0	0	0	0	0	Reserved - not publick parking
			South	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
DeBoom St	2nd St	DeBoom St	North	N/P	0	0	0	0	0	0	0	1	No Parking Anytime
			South	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
2nd St	Bryant St	Federal St	East	7	0	0	0	0	0	6	0	0	
2nd St	Federal St	DeBoom St	East	3	0	0	0	0	0	3	0	0	
2nd St	DeBoom St	Brannan St	East	5	0	0	0	0	0	1	0	0	
Rincon Alley	Bryant St	Federal St	East	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
			West	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
Federal St	Delancey St	Federal St	North	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
			South	N/P	0	0	0	0	0	0	0	0	No Parking Anytime
Delancey St	Federal St	Brannan St	West	0	0	0	21	0	0	20	0	0	Horisontal parking div by 8ft - no lines
Total				15	0	0	21	0	0	30	0	1	

Street	From	To	Side	Freight Loading (Yellow): Count (if metered)	Length (if unmetered)	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other
Federal St	2nd St	Federal St	North	0	0	0	0	0
			South	0	0	0	0	0
DeBoom St	2nd St	DeBoom St	North	0	0	0	0	0
			South	0	0	0	0	0
2nd St	Bryant St	Federal St	East	0	0	0	0	0
2nd St	Federal St	DeBoom St	East	0	0	0	0	0
2nd St	DeBoom St	Brannan St	East	0	0	0	0	0
Rincon Alley	Bryant St	Federal St	East	0	0	0	0	0
			West	0	0	0	0	0
Federal St	Delancey St	Federal St	North	0	0	0	0	0
			South	0	0	0	0	0
Delancey St	Federal St	Brannan St	West	0	0	0	0	0

Street	From	To	Side	Passenger Loading (White): Length	Activity Level	Illegal Activity: Double Park	Illegal Activity: Other	
Federal St	2nd St	Federal St	North	0	0	0	0	
			South	0	0	0	0	
DeBoom St	2nd St	DeBoom St	North	0	0	0	0	
			South	0	0	0	0	
2nd St	Bryant St	Federal St	East	0	0	0	0	
2nd St	Federal St	DeBoom St	East	20 ft	0	0	0	
2nd St	DeBoom St	Brannan St	East	0	0	0	0	
Rincon Alley	Bryant St	Federal St	East	0	0	0	0	
			West	0	0	0	0	
Federal St	Delancey St	Federal St	North	0	0	0	0	
			South	0	0	0	0	
Delancey St	Federal St	Brannan St	West	48 ft	0	0	0	Horisontal parking div by 8ft - no lines

Appendix TR-K: Shuttle Zone Demand Analysis

Shuttle Bus Loading Zone Demand Analysis

Weekday Routes Serving 860 Sutter Street (2015)

From 4:00 PM to 4:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
D	Ford Starcraft Allstar (27')	30	4:07	4:47								27	27																																							27	27											
E	Glaval Entourage (40')	30	4:27																													40	40	40																														
G	GMC Glava Bus (40')	30	4:47																																																	40	40											
H	GMC Glava Bus (40')	20	4:16																		40	40																																										
I	Gillig Phantom Bus (40')	20	4:17	4:17 (2)	4:57																	40	40		40	40																																				40	40	
M	Ford Starcraft Allstar (27')	20	4:12	4:32	4:52												27	27																			27	27	27																		27	27						
SE	Fod Van E150 (20')	25	4:20																						20	20																																						
Total						0	0	0	0	0	0	27	27	0	0	0	27	27	0	0	40	80	40	0	60	60	0	0	0	0	0	40	40	40	0	0	27	27	27	0	0	0	0	0	0	0	0	0	0	0	0	67	67	0	0	0	27	27	0	0	0	40	40	0

max= 80

From 5:00 PM to 5:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
D	Ford Starcraft Allstar (27')	30	5:12	5:52													27	27																																							27	27						
E	Glaval Entourage (40')	30	5:02	5:32			40	40																													40	40																										
G	GMC Glava Bus (40')	30	5:22	5:55																							40	40																																40	40			
H	GMC Glava Bus (40')	20	5:02	5:30			40	40																											40	40																												
I	Gillig Phantom Bus (40')	20	5:05	5:42						40	40																																				40	40																
M	Ford Starcraft Allstar (27')	20	5:14	5:32	5:56														27	27																	27	27																							27	27		
SE	Fod Van E150 (20')	25																																																														
Total						0	80	80	0	40	40	0	0	0	0	0	27	27	27	27	0	0	0	0	0	0	40	40	0	0	0	0	0	0	40	40	67	67	0	0	0	0	0	0	0	0	40	40	0	0	0	0	0	0	0	0	27	27	0	40	67	27	0	0

*Assumes each shuttle bus dwells for 2 minutes.

max= 80

Weekday Routes Serving 620 Sutter Street (2015)

From 4:00 PM to 4:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
D	Ford Starcraft Allstar (27')	30	4:05	4:45								27	27																																					27	27													
E	Glaval Entourage (40')	30	4:25																													40	40																															
G	GMC Glava Bus (40')	30	4:45																																																	40	40											
H	GMC Glava Bus (40')	20	4:12																		40	40																																										
I	Gillig Phantom Bus (40')	20	4:15	4:15 (2)	4:55																	40	40		40	40																																				40	40	
M	Ford Starcraft Allstar (27')	20	4:10	4:30	4:50												27	27																			27	27																			27	27						
SE	Fod Van E150 (20')	25	4:18																				20	20																																								
Total						0	0	0	0	0	0	27	27	0	0	0	27	27	0	0	40	80	60	20	40	40	0	0	0	0	0	40	40	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	27	27	40	40	0	0	0	27	27	0	0	0	40	40	0

max= 80

From 5:00 PM to 5:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
D	Ford Starcraft Allstar (27')	30	5:12	5:52													27	27																																							27	27						
E	Glaval Entourage (40')	30	5:02	5:32			40	40																													40	40																										
G	GMC Glava Bus (40')	30	5:22	5:55																							40	40																																40	40			
H	GMC Glava Bus (40')	20	5:02	5:30			40	40																											40	40																												
I	Gillig Phantom Bus (40')	20	5:05	5:42						40	40																																				40	40																
M	Ford Starcraft Allstar (27')	20	5:14	5:32	5:56														27	27																	27	27																							27	27		
SE	Fod Van E150 (20')	25																																																														
Total						0	80	80	0	40	40	0	0	0	0	0	27	27	27	27	0	0	0	0	0	0	40	40	0	0	0	0	0	0	40	40	67	67	0	0	0	0	0	0	0	0	40	40	0	0	0	0	0	0	0	0	27	27	0	40	67	27	0	0

*Assumes each shuttle bus dwells for 2 minutes.

max= 80

Weekday Routes Serving 601 Brannan Street (2015)

From 4:00 PM to 4:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
G	GMC Glava Bus (40')	30	4:05	4:30						30	30																								30	30																												
H	GMC Glava Bus (40')	20	4:25	4:40																										20	20														20	20																		
I	Gillig Phantom Bus (40')	20	4:27	4:30	4:55																											20	20		20	20																								20	20			
Total						0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	20	20	0	50	50	0	0	0	0	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0

max= 50

From 5:00 PM to 5:59 PM

Route	Vehicle Type	PM Peak Headway	Scheduled Arrival Time (Spring 2015)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
G	GMC Glava Bus (40')	30	5:05	5:40						30	30																																		30	30																		
H	GMC Glava Bus (40')	20	5:10	5:54											20	20																																											20	20				
I	Gillig Phantom Bus (40')	20	5:18	6:00																			20	20																																								
Total						0	0	0	0	30	30	0	0	0	20	20	0	0	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0	20	20	0	0	0	0

*Assumes each shuttle bus dwells for 2 minutes.

max= 30

Appendix TR-L: Travel Behavior Survey Results

MEMORANDUM

DATE: April 6, 2016

TO: Manoj Madhavan, San Francisco Planning Department
Joan Bergholt, Academy of Art University

FROM: Chi-Hsin Shao, CHS Consulting Group
Migi Lee, CHS Consulting Group

RE: Summary of AAU ESTM Trip Generation and Travel Behavior Survey Results

---

This memorandum presents the methodologies and findings of the AAU ESTM Trip Generation and Travel Behavior Surveys.

Introduction

As part of the ongoing AAU ESTM efforts, the San Francisco Planning Department asked CHS Consulting Group to administer trip generation and travel behavior surveys to assess potential changes in trip generation and travel behaviors by AAU students, faculty and staff members since the AAU Environmental Impact Report (EIR) base year 2010.

Trip generation and travel behavior surveys were conducted at the following seven AAU sites selected by the Planning Department:

- 1727 Lombard Street (residential facility with 52 residential rooms)
- 620 Sutter Street (residential facility with 65 residential rooms)
- 466 Townsend Street (113,436 square feet of institutional use including classrooms and studio/labs)
- 491 Post Street (37,730 square feet of institutional use including auditorium and classrooms)
- 2340 Stockton Street (44,530 square feet of institutional use including classrooms and studio/labs)
- 180 New Montgomery Street (190,006 square feet of institutional use including classrooms, library, and studio/labs)
- 79 New Montgomery Street (147,509 square feet of institutional use including administrative offices, classrooms, studio/labs, theater, and gallery)

Trip Generation Survey

Methodology

CHS administered a trip generation survey using the same methodology as those applied in 2010 for the AAU EIR. AAU provided security camera video tapes which show people entering and exiting through the main entrances of each of the seven selected buildings.[1] Data was collected by counting the number of people entering and exiting each facility as recorded on security videos during the PM peak period (4:00 p.m. to 6:00 p.m.) on Tuesday, March 15, 2016. Person-trip generation rates were calculated for each building, and an arithmetic average was calculated to determine the trip generation rates for two residential and five academic buildings. Inbound and outbound split data were also derived from actual counts of persons entering and exiting the selected AAU buildings using AAU's security camera videos.

Survey Findings

Table 1 shows the total number of persons entering and exiting each building during the PM peak period and the arithmetic average of the trip generation rate. The average trip generation rates for the two residential halls (1.16 trips per room) are approximately the same as those reported for the base year 2010 (1.17 trips per room). The wide range in trip generation rates between the two residential halls, located at 1727 Lombard Street (0.54 trips per room) and 620 Sutter Street (1.66 trips per room), may be attributed to the central location of the 620 Sutter Street site, which is closer in proximity to other AAU buildings and attractions, and which may result in more frequent trips by its residents. The average trip generation rate for these two residential halls is approximately 0.7 percent lower than the average reported for the base year 2010.

Trip generation rates for institutional buildings ranged from 1.05 to 3.01 trips per 1,000 square feet of space. The highest trip generation rate at 180 New Montgomery Street (3.01 trips/ksf) may be attributed to the library use at the site. The average trip generation rate for institutional buildings is 2.0 trips per 1,000 square feet, which is approximately 56 percent lower than the average reported for the base year 2010 (4.6 trips per 1,000 square feet). The change is partially attributed to a 26 percent reduction in student enrollment for 2016, compared to the base year 2010. Also, the trip generation survey in 2010 included two additional buildings, the 410 Bush Street and 625 Sutter Street sites, which are centrally located to other AAU buildings and attractions, which tend to generate more frequent trips and may have skewed the average trip generation rate.

---

[1] Secondary entrances were not included because they are used for emergency exits and alarmed or are only occasionally used by select AAU staff for smoking breaks.

Table 1 – Trip Generation during PM Peak Hour

AAU Site	Size	Total Person Trips[1]	2016 Trip Generation Rate[2]	Average per Land Use Type[3]	2010 AAU EIR Trip Generation Rate
Residential Halls					
1727 Lombard St.	52 rooms	28	0.54 trips/room	1.16 trips/room	1.17 trips/room
620 Sutter St.	65 rooms	108	1.66 trips/room		
Institutional Buildings					
466 Townsend St.	113,436 sf	119	1.05 trips/ksf	2.0 trips/ksf	4.6 trips/ksf
491 Post St.	37,730 sf	81	2.15 trips/ksf		
2340 Stockton St.	44,530 sf	46	1.03 trips/ksf		
180 New Montgomery St.	190,006 sf	572	3.01 trips/ksf		
79 New Montgomery St.	147,509 sf	260	1.76 trips/ksf		

Source: AAU, 2016; CHS Consulting Group, 2016.
Notes:
1. Includes both inbound and outbound person trips.
2. ksf = 1,000 square feet
3. Represents the weighted average.

Inbound and outbound split data were also derived from the actual counts of persons entering and exiting AAU buildings during the PM peak hour using AAU's security camera video tapes.

Table 2 shows the percentage of people entering and exiting each building during the PM peak hour. The inbound and outbound splits for institutional buildings are generally similar to the 2010 condition, but the share of inbound trips were higher than outbound trips in 2016 compared to 2010 condition.

Table 2 – Directional Splits during PM Peak Hour

AAU Site	Inbound	Outbound	IB/OB Split per Land Use Type[1]	2010 AAU EIR IB/OB Split[1]
Residential Halls				
1727 Lombard St.	86%	14%	78%/22%	45%/55%
620 Sutter St.	76%	30%		
Institutional Buildings				
466 Townsend St.	46%	54%	43%/ 57%	39% / 61%
491 Post St.	35%	65%		
2340 Stockton St.	22%	78%		
180 New Montgomery St.	43%	57%		
79 New Montgomery St.	47%	53%		

Source: AAU, 2016; CHS Consulting Group, 2016.
Notes:
1. Represents the weighted average.
2. IB=Inbound; OB=Outbound

Travel Behavior Survey

Methodology

In order to obtain travel mode data for students, faculty and staff under the year 2016 condition, CHS conducted an intercept survey on Wednesday March 15, 2016 and Thursday March 16, 2016 during the midday period (2:00 p.m. to 4:00 p.m.). Surveyors approached students either entering or exiting an AAU building at each of the seven locations. The survey questionnaire included the following four questions:

1. What is your affiliation with AAU? Possible answer choices included Residential student, Commuter student, Faculty, Staff member, and Other.

2. Where do you typically travel to and from between 4:00 p.m. and 6:00 p.m.? Possible answer choices included Home, Dorm, Class, Work, and Other.

3. Provide the address or cross streets of the origin and destination of your trip taken between 4:00 p.m. and 6:00 p.m.

4. What is your primary mode choice for the trip taken between 4:00 p.m. and 6:00 p.m.? Possible answer choices included Drive Alone, Carpool, Transit (Muni/BART), Bike, Walk, Taxi, Uber/Lyft, Ferry, or Other.

It is noted that this methodology is different from the survey conducted in 2010. The 2010 online survey was distributed to all AAU students, faculty and staff via email notifications sent to university email addresses, and the questionnaire asked for detailed descriptions of trips taken throughout the day. CHS's 2016 intercept survey was conducted with students, faculty and staff at the seven select AAU sites and focused on trips taken during the PM peak period only, their trip origin and destination, and the travel mode choice.

Survey Findings

A total of 567 responses were collected, of which 430 responses were considered complete and useable survey records. The remaining 137 were considered invalid entries due to incomplete or partial data. Of the 430 valid entries, 174 were obtained from commuter students, 196 were obtained from residential students and 60 were obtained from faculty or staff members. The resulting survey sample size used for the analysis provides a sample rate of approximately two percent for commuter students, 12 percent for residential students, and three percent for faculty and staff.[2] The sample size for the 2010 online survey included five percent of commuter students, 11 percent of residential students, and 14 percent of faculty and staff.

---

[2] AAU enrolls a total of 7,015 commuter students and 1,634 residential students and employs 1,954 faculty and staff members as of the spring semester in 2016.

Table 3 shows the distribution of commuter student's trips by travel mode for the PM peak period. Survey data were presented in the same format as those used in the Traffic Study Report and the EIR, with a breakdown of trips originating less than or greater than 0.5 miles of Market Street. Key overall differences include a reduction of drive alone trips by five percent (from 13 to 8 percent) and transit trips by six percent (from 52 to 46 percent). There is a six percent increase in AAU shuttle trips (from 13 to 19 percent) and taxi/Uber/Lyft trips by four percent (from 0 to 4 percent). For trips originating from areas less than 0.5 miles from Market Street, there is a four percent reduction in drive alone mode and an almost three percent increase in taxi/Uber/Lift (note: there was no Uber/Lift in 2010). There is also a five percent reduction of walk trips, a two percent reduction in AAU shuttle mode, and a seven percent increase in transit usage. For trips originating from areas greater than 0.5 miles from Market Street, the total combined transit/AAU shuttle bus modes are approximately the same, but there is a 16 percent reduction in transit mode and 16 percent increase in AAU shuttle bus mode. There is a six percent reduction in walk mode, and a five percent increase in taxi/Uber/Lyft mode..

In comparison to year 2010, the PM peak total sample numbers indicate that fewer students are driving alone to AAU campus and more students are using the AAU shuttle or taxi or ridesharing services such as Uber or Lyft.

Table 3 – Commuter Students Mode Splits during PM Peak Period

Year 2016									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi/ Uber/Lyft	Other	Total
PM Peak - Commute Trip Origin less than 0.5 miles of Market Street									
6	0	50	14	0	2	23	3	1	99
6%	0%	51%	14%	0%	2%	23%	3%	1%	100%
PM Peak - Commute Trip Origin greater than 0.5 miles of Market Street									
8	7	30	20	0	3	3	4	0	75
11%	9%	40%	27%	0%	4%	4%	5%	0%	100%
PM Peak - Total Sample									
14	7	80	34	0	5	26	7	1	174
8%	4%	46%	19%	0%	3%	15%	4%	1%	100%
Year 2010									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi	Other	Total
PM Peak – Commute Trip Origin less than 0.5 miles of Market Street									
8	0	35	13	0	1	22	1	-	80
10%	0%	44%	16%	0%	1%	28%	1%	-	100%
PM Peak - Commute Trip Origin greater than 0.5 miles of Market Street									
26	10	101	20	0	5	19	0	-	181
14%	6%	56%	11%	0%	3%	10%	0%	-	100%
PM Peak - Total Sample									

34	10	136	33	0	6	41	1	-	261
13%	4%	52%	13%	0%	2%	16%	0%	-	100%

Source: AAU, 2016; CHS Consulting Group, 2016

Table 4 shows the distribution of residential student's trips by mode for the PM peak period. Of the 196 residential students surveyed in 2016, the percentage of residential students taking the AAU shuttle remains the same at 53 percent. However, there are changes in the other modes. Walk trips have decreased by 15 percent, but there is a six percent increase in drive alone trips. Transit trips increased by three percent, bike trips by two percent, and use of taxi/Uber/Lyft is up three percent. In comparison to year 2010, the PM peak total sample numbers indicate that more residential students are choosing to drive alone or use transit with a slight increase in bike or taxi/Uber/Lyft mode, while less are choosing to walk.

Table 4 – Residential Students Mode Splits during PM Peak Period

Year 2016									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi/ Uber/Lyft	Other	Total
PM Peak - Total Sample									
12	0	23	103	0	4	46	5	3	196
6%	0%	12%	53%	0%	2%	23%	3%	2%	100%
Year 2010									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi	Other	Total
PM Peak - Total Sample									
0	0	3	17	0	0	12	0	-	32
0%	0%	9%	53%	0%	0%	38%	0%	-	100%

Source: AAU, 2016; CHS Consulting Group, 2016

Table 5 shows the distribution of faculty and staff trips by mode for the PM peak period. Of commuters with trips originating from areas less than 0.5 miles from Market Street, there is a five percent increase in the use of transit (61 percent, up from 56 percent), a three percent increase in taxi/Uber/Lyft use (three percent up from zero percent), and a nine percent increase in the use of AAU shuttle service (up nine percent from zero percent). There is a seven percent decrease in driving alone (three percent down from 10 percent), six percent decrease in bike trips (down three percent from nine percent), and a three percent decrease in carpooling (down three percent from six percent).

Of those faculty and staff making trips from areas more than 0.5 miles away from Market Street, changes in travel mode choices include a five percent decrease in driving alone (down to 15 percent from 20 percent), a four percent decrease in carpooling (down to zero percent from four percent), a 23 percent decrease in transit use (down to 30 percent from 53 percent), and a 12 percent decrease in walk trips (down to four percent from 16 percent). Use of the AAU shuttle has increased by 25 percent (up 26 percent from one percent), and bike trips increased by 9 percent (up to 11 percent from 2 percent).

In comparison to year 2010, PM peak total sample figures show that fewer faculty and staff members are using automobiles (drive alone or carpool) or walking to travel to work, while more are relying on the AAU shuttle service to travel to and from the AAU campus.

Table 5 – Faculty and Staff Mode Splits during PM Peak Period

Year 2016									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi/ Uber/Lyft	Other	Total
PM Peak - Commute Trip Origins less than 0.5 mile of Market Street									
1	1	20	3	0	1	6	1	0	33
3%	3%	61%	9%	0%	3%	18%	3%	0%	100%
PM Peak - Commute Trip Origins greater than 0.5 mile of Market Street									
4	0	8	7	2	3	1	1	1	27
15%	0%	30%	26%	7%	11%	4%	4%	4%	100%
PM Peak - Total Sample									
5	1	28	10	2	4	7	2	1	60
8%	2%	47%	17%	3%	7%	12%	3%	2%	100%
Year 2010									
Drive Alone	Carpool	Transit	AAU Shuttle	Ferry	Bike	Walk	Taxi	Other	Total
PM Peak - Commute Trip Origins less than 0.5 mile of Market Street									
13	8	74	0	1	12	23	0	-	131
10%	6%	56%	0%	1%	9%	18%	0%	-	100%
PM Peak - Commute Trip Origins greater than 0.5 mile of Market Street									
37	7	99	2	6	4	30	1	-	186
20%	4%	53%	1%	3%	2%	16%	1%	-	100%
PM Peak - Total Sample									
50	15	173	2	7	16	53	1	-	317
16%	5%	55%	1%	2%	5%	17%	0%	-	100%

Source: AAU, 2016; CHS Consulting Group, 2016

Reduced Shuttle Ridership

It is reported that the AAU shuttle ridership has gone down by approximately 55 percent since year 2010 (from 493 trips in 2010 to 220 trips in 2015 during the PM peak hour). This reduction in shuttle ridership may be largely attributed to reduced student enrollment (by approximately 26 percent from 11,123 students in 2010 to 8,649 students in 2016) and consolidation of classroom and department locations.[3]

While the travel behavior survey results show the increased use of shuttles by commuter students and faculty/staff members (mostly for trips from areas greater than 0.5 miles away from Market Street), the overall trip generation rate has gone down by more than half for academic and institutional buildings (from 4.6 trips per 1,000 square feet to 2.0 trips per 1,000 square feet), as summarized in **Table 1** above. Due to this reduced trip generation, the overall system wide shuttle demand is decreased by approximately 30 percent. **Table 6** presents a comparison of shuttle demand estimation for AAU's 23 existing buildings analyzed in the ESTM based on the 2010 and 2016 trip generation rates and mode split data. It shows that the estimated shuttle demand using the 2016 data is approximately 30 percent less than the estimated demand for 2010 condition.

Table 6 – Shuttle Demand during PM Peak Period

AAU Site	Size	2010 Rates		2016 Rates	
		Total Person Trips	Shuttle Trips	Total Person Trips	Shuttle Trips
2340 Stockton Street (ES-1)	44,530 sqf	203	27	90	16
2295 Taylor Street (ES-2)	20,000 sqf	91	12	40	7
1727 Lombard Street (ES-3)	52 rooms	61	35	60	34
2211 Van Ness Avenue (ES-4)	12 rooms	14	8	14	8
2209 Van Ness Avenue (ES-5)	18 rooms	21	12	21	12
2151 Van Ness Avenue (ES-6)	27,912 sqf	127	17	56	10
1849 Van Ness Avenue (ES-8)	107,908 sqf	492	66	218	38
1916 Octavia Boulevard (ES-9)	22 rooms	26	15	26	15
950 Van Ness Avenue (ES-10)	50,700 sqf		0		0
1153 Bush Street (ES-11)	15 rooms	18	10	17	10
1080 Bush Street (ES-12)	57 rooms	67	38	66	38
860 Sutter Street (ES-13)	89 rooms	104	59	103	59
817-831 Sutter Street (ES-14)	114 rooms	133	76	132	75
1069 Pine Street (ES-16)	1,875 sqf	9	1	4	1
1055 Pine Street (ES-17)	81 rooms	95	54	94	54
620 Sutter Street (ES-20)	65 rooms	76	43	75	43
491 Post Street (ES-23)	37,730 sqf	172	28	76	13
77 New Montgomery Street (ES-27)	147,509 sqf	673	109	298	52

[3] The Sculpture program moved to the Cannery from 410 Bush Street; the Advertising program moved to 410 Bush Street from 60 Federal Street; Interior Architecture and Design moved to 601 Brannan Street from 2300 Stockton Street; Fine Art classes have been consolidated at 60 Federal Street; Motion Pictures & Television consolidated at 466 Townsend Street (these were formerly divided between Townsend and 180 New Montgomery Street); and the Fashion program has been consolidated at 625 Polk Street (these were formerly divided between 180 New Montgomery Street and 2300 Stockton Street).

180 New Montgomery Street (ES-28)	190,066 sqf	867	140	384	67
58-60 Federal Street (ES-30)	99,552 sqf	454	61	201	35
601 Brannan Street (ES-31)	73,666 sqf	336	45	149	26
460 Townsend Street (ES-33)	25,920 sqf	118	16	52	9
466 Townsend Street (ES-34)	113,436 sqf	517	69	229	40
Total		**4,673**	**942**	**2,407**	**660**
Source: CHS Consulting Group, 2016					

There are a number of differences and changes between the 2010 and the 2016 survey findings. They include:

1. Transportation Network Companies (TNC) such as Uber or Lyft were not as popular in 2010 as today. These TNCs constitute approximately three percent of mode shares among AAU students, faculty and staff today.

2. AAU relocated its admin office from 79 New Montgomery Street to 150 Hayes Street in 2013. This change may have partially attributed to increased shuttle demand and reduced transit demand by faculty and staff since the new admin office is less convenient to BART and Muni Metro.

3. The 2016 survey was conducted as an intercept survey at seven AAU sites selected by the Planning Department. The seven sites all have a shuttle stop adjacent the site near its main entrance, whereas in 2010, an online survey was administered to the entire AAU population including their trips from AAU sites without a direct AAU shuttle stop (e.g., 2151 Van Ness, 1153 Bush Street, 1080 Bush Street, 1055 Pine Street).

APPENDIX NO:

Noise

E51

NAME: Academy of Art University
ADDRESS: 2300 Stockton Street
CITY: San Francisco, California 94133
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 4/20/2012 Updated

CITY MECHANICAL, Inc.

HVAC

Agreement #753

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
EF 1	EXHAUST FAN	CAPTIVE AIRE	ISQB16	1088701	ROOM 100	208-1ph	1	AX50		N/A
EF 2	EXHAUST FAN	GREENHECK	SQ80-6-X	121047841006	1ST FLOOR KITCHEN EXHAUST	115-1ph		DD		N/A
EF 3	EXHAUST FAN	GREENHECK	SQ100-C-X	121047841006	1ST FLOOR BATHROOM	115-1ph		DD		N/A
VFD 1	VARIABLE FREQUENCY DRIVE	ABB	ACH0500VC015AY	2075201479	PENTHOUSE RF1	W/F		DD		N/A
VFD 2	VARIABLE FREQUENCY DRIVE	ABB	ACH0500VC015SPY	207501481	PENTHOUSE RF2	W/F		DD		N/A
VFD 3	VARIABLE FREQUENCY DRIVE	ABB	ACH0500VC038AY	2080100715	PENTHOUSE SF1	W/F		DD		N/A
VFD 4	VARIABLE FREQUENCY DRIVE	ABB	ACH0500VC038AY	2071902688	PENTHOUSE SF2	W/F		DD		N/A
CU 8	CONDENSER UNIT	FUJITSU	AOU42RLX	DWN001543	ROOF	208-1ph		D/D		WASHABLE
CU 9	CONDENSER UNIT	FUJITSU	AOU42RLX	DWN001536	ROOF	208-1ph		D/D		WASHABLE
CU 10	CONDENSER UNIT	FUJITSU	AOU42RLX	DWN001488	ROOF	208-1ph		D/D		WASHABLE
CU 11	CONDENSER UNIT	FUJITSU	AOU42RLX	DWN001487	ROOF	208-1ph		D/D		WASHABLE
CU 12	CONDENSER UNIT	FUJITSU	AOU42RLX	DWN001535	ROOF	208-1ph		D/D		WASHABLE
FC 1	FAN COIL	FUJITSU	AUU42RCLX	DWA001663	ROOM 304	208-1		D/D		N/A
FC 2	FAN COIL	FUJITSU	AUU42RCLX	DWA001511	ROOM 303	208-1		D/D		N/A
FC 3	FAN COIL	FUJITSU	AUU42RCLX	DWA001665	ROOM 303	208-1ph		D/D		N/A
FC 4	FAN COIL	FUJITSU	AUU42RCLX	DWA001664	ROOM 302	208-1ph		D/D		N/A
FC 5	FAN COIL	FUJITSU	AUU42RCLX	DWA001553	ROOM 304	208-1ph		D/D		N/A

E51

NAME: Academy of Art University
ADDRESS: 2300 Stockton Street
CITY: San Francisco, California 94133
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 4/20/2012 Updated

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

HVAC

Agreement #753

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
EU1	EVAPORATOR UNIT	YORK	F2RP036H06B	SXENS128260	SERVER ROOM	208/230-1ph		DD	1	20X20X1 HIE
EU2	EVAPORATOR UNIT	YORK	F2RP036H06B	SXENS128258	SERVER ROOM	208-1ph		DD	1	20X20X1 HIE
EU3	EVAPORATOR UNIT	YORK	F3EH090A33A	SNON4289219	ROOM 313	208-3ph	1	A36	4	16X25X1 HIE
EU4	EVAPORATOR UNIT	YORK	FA090CC0A6AAA1A	SNOF6566918	AV ROOM 217	208/230-1ph	1	A36	4	16X25X1 HIE
EU5	EVAPORATOR UNIT	DAY & NIGHT	FSM4X6000A1	A092885679	ROOM 219	208-1ph		DD	1	22X22X1 HIE
EU6	EVAPORATOR UNIT	DAY & NIGHT	FSM4X3600A	A094085126	ROOM 218	208-1ph		DD	1	22X22X1 HIE
EU7	EVAPORATOR UNIT	DAYTON	FSM4X3600A	A094085189	ROOM 302	208-1ph		D/D		WASHABLE
CU 1	CONDENSER UNIT	YORK	H4DB036S06A	WDLM023145	ROOF	208-1ph		WF		WF
CU 2	CONDENSER UNIT	YORK	H4DB036S06A	WDLM023154	ROOF	208-1ph		WF		WF
CU 3	CONDENSER UNIT	YORK	E3FB090A25A	SNOM4225269	ROOF	208-3ph		WF		WF
CU 4	CONDENSER UNIT	YORK	HA090C00A2AAA1A	NON6306288	ROOF	208-3ph		WF		WF
CU 5	CONDENSER UNIT	DAY & NIGHT	N4HY360GHB400	E094908883	ROOF	208-3ph		DD		N/A
CU 6	CONDENSER UNIT	DAY & NIGHT	N4H336GHB300	E093711541	ROOF	208-3ph		DD		N/A
CU 7	CONDENSER UNIT	DAY & NIGHT	N4H336GHB300	E093711555	ROOF	208-3ph		DD		N/A
AC 1	AIR COMPRESSOR	HUSKY	TF291200AJ	L81710300046	ROOF	208-1ph	1	B67		WF
RF 1	RETURN FAN	BARRY BLOWER	300-DWD1	69-7384	3RD FLOOR ROOF MECHANICAL ROOM	208-3ph	2	B112		N/A
RF 2	RETURN FAN	BARRY BLOWER	300-DWD1	69-7385	2ND FLOOR ROOF MECHANICAL ROOM	208-3ph	2	B112		N/A
HWP 1	HOT WATER PUMP	B&G	SERIES 100	106192	ROOF BOILER ROOM	120-1ph		N/A		N/A
WP 1	WATER PUMP	TEEL	4P932	G1412	ROOF BOILER ROOM	208-3ph		N/A		N/A
WP 2	WATER PUMP	TEEL	4P931	G1443	ROOF BOILER ROOM	208-3ph		N/A		N/A
B 1	BOILER	PARKER	T1460	A1802	BOILER ROOM	120-1ph		N/A		N/A
WH 1	WATER HEATER	BRADFORD WHITE	WF	AG4995845	BOILER ROOM	WF		WF		WF
SF 1	SUPPLY FAN	MAGIC AIRE	60-HBAW-6	WO21150020	ROOF MECH. ROOM ROOM 100	208-3ph	1	A49	2	18X20X1
SF 2	SUPPLY FAN	BARRY BLOWER	330-DWD1	3-BHD-LW-69-7383	3RD FLOOR ROOF MECHANICAL ROOM	208-3ph	3	C128	1	18X24X24 BAG 6B642
SF 3	SUPPLY FAN	BARRY BLOWER	330-DWD1	69-7382	2ND FLOOR ROOF MECHANICAL ROOM	208-3ph	3	C120	1	18X24X24 BAG
SF 4	SUPPLY FAN	CAPTIVE AIRE	INLINE 2-G12	1088701	ROOM 100	208-1ph	1	AX55		N/A

ES-2

NAME: Ac y of Art University
ADDRESS: 76 Chestnut Street
CITY: San Francisco, CA
PHONE: 415-994-0661
CONTACT: Richard Gonzales

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX: 510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	BELTS	# FILTERS/SIZE	Service Check Off
F #1	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023525	2ND FLR. FRONT MECH RM	120	1 - A37	1 - 14 x 25 x 2 DISPOSABLE	
					2ND FLR. REAR MECH RM.	120		1 - 16 x 25 x 2 DISPOSABLE	
F #2	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023504	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 14 x 25 x 2 DISPOSABLE	
					2ND FLR. REAR MECH RM.	120		1 - 16 x 25 x 2 DISPOSABLE	
F #3	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023524	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 14 x 25 x 2 DISPOSABLE	
					2ND FLR. REAR MECH RM.	120		1 - 16 x 25 x 2 DISPOSABLE	
F #4	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023687	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 18 x 25 x 2 DISPOSABLE	
F #5	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023506	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 14 x 25 x 2 DISPOSABLE	
					2ND FLR. REAR MECH RM.	120		1 - 16 x 25 x 2 DISPOSABLE	
F #6	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023635	2ND FLR. REAR MECH RM.	120	1 - A38	1 - 18 x 25 x 2 DISPOSABLE	
F #7	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023505	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 18 x 25 x 2 DISPOSABLE	
F #8	GAS FURNANCE	YORK	P4HUE301N13006A	WGMM023677	2ND FLR. REAR MECH RM.	120	1 - A37	1 - 18 x 25 x 2 DISPOSABLE	
EF #9	EXHAUST FAN	GREENHECK	SFB-20-75-CW-UB-X	4602129	ROOF		2 - A53		
EF #10	EXHAUST FAN	DAYTON	3C009A		ROOF		2 - 4L660		

Customer Signature:

Upon Inspection Our Technician Recommends the Following:

1)

2)

3)

4)

E5-8

NAME: Academy of Art University
ADDRESS: 1849 Washington Street
CITY: San Francisco, California 94109
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 1/21/2014

CITY MECHANICAL, Inc.

724 ALFRED
HERCULES
PHONE: 51
FAX:510-
www.cityme

Agreement #

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
F 1	Upflow Gas Furnace	YORK	P3HUD20L104D1A	EFGM183321	Rm 310/304 NISSAN DESIGN ROOM	120		D/D	2	20x25x1 HIE
F 2	Upflow Gas Furnace	YORK	P3HUD20L10401C	EKHM764738	Rm 310/204 NISSAN DESIGN ROOM	120		D/D	1	16x25x1 HIE
AC 3	Upflow Split System	REZNOR	CAUA400	AZA73M6N01183	3nd Floor NISSAN DESIGN	W/F	1	A69	2 2	20x24x2 HIE 24x24x2 HIE
AC 11	Split System	YORK	F2RP024H06G	SA0G5597851	3RD FLR. SERVER ROOM	208 1-PHASE		D/D	1	12x24x1 HIE
CU 12	Condensing Unit	CARRIER	24ACR324A	200BE04887	ROOF	208 1-PHASE		D/D		N/A
CU 4	Condensing Unit	YORK	H1CE150A25C	NHLM081915	ROOF	208 3-PHASE		W/F		W/F
FC 5	Fan Coil	YORK	FTFP060H06B	SEAJS111509	OFFICE 3RD FLR. HALLWAY	208 1-PHASE		W/F	1	20x22x1 HIE
CU 6	Condensing Unit	YORK	HADB060S06A	SEEJM304056	ROOF	208 1-PHASE		W/F		W/F
F 7	Upflow Gas Furnace	TEMPSTAR	NYC6150KJA1	L984133371	5TH FLR RM 535 CLOSET WALL	120		D/D	1	16x25x1 HIE
F 8	Upflow Gas Furnace	TEMPSTAR	NTC6150KJA1	L984133441	5TH FLR, RM ACC FROM 560 CLOSET	120		D/D	1	16x25x1 HIE
F 9	Upflow Gas Furnace	TEMPSTAR	NTC6150KJA1	L984133422	5TH FLR, RM 550, CLOSET WALL	120		D/D	1	16x25x1 HIE
F 10	Upflow Gas Furnace	TEMPSTAR	NTC6150KJA1	33396	5TH FLR, RM 535 (inside), CLOSET	120		D/D	1	16x25x1 HIE
EF 1	Exhaust Fan	GREENHECK	SWB-115-15CW-U8-X	06A10719	ROOF	208 1p	1	A30		N/A
EF 2	Exhaust Fan	GREENHECK	20-BISW-21-10-I	99H19094	ROOF	208 1p	2	B38		N/A
EF 3	Exhaust Fan	GREENHECK	BSQ-300-15-X	5117366	CAR MUSEUM	W/F		W/F		N/A
F 11	Furnace	YORK	GMP150-5	9406-099061	CAR MUSEUM	120 V		N/A		W/F
FC 11	Fan Coil	CARRIER	FC4DNF030000AAAA	3608A69437	3RD FLR. SERVER ROOM	230 - 1 PHASE		D/D		W/F
SF 1	Supply Fan	W/F	W/F	W/F	BETWEEN SPRAY BOOTHS	208-1 ph	1	A27		N/A
SF 2	Supply Fan	W/F	W/F	W/F	OVER BOOTH	208-3 ph	1	A27	4	20X20X2 PLEATED
SF 3	Supply Fan	SOLER & PABA	SQB18SH35	100013240	OVER COMPACTOR	208-3 ph	1	A52		N/A
SF 4	Supply Fan	GREENHECK	BSQ-160-20-X	06A12971	ABOVE WATER BORNE	208-3 ph	1	A47	4	20X20X2 PLEATED
SF 5	Supply Fan	W/F	W/F	W/F	ABOVE LATHE WOOD SHOP	208-3 ph	1	A47		N/A
SF 6	Supply Fan	W/F	W/F	W/F	ABOVE LATHE WOOD SHOP	208-3 ph	1	A47		N/A
DH 1	Duct Heater	WARREN	CBK	W/F	OVER SPRAY BOOTH	208-3 ph		N/A		N/A
DH 2	Duct Heater	WARREN	CBK	W/F	OVER BOOTH	208-3 ph		N/A		N/A
DH 3	Duct Heater	WARREN	CBK	W/F	OVER COMPACTOR	208-3 ph		N/A		N/A

ES-8

NAME: Academy of Art University
ADDRESS: 1849 Washington Street
CITY: San Francisco, California 94109
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 1/21/2014

CITY MECHANICAL, Inc.

724 ALFRED
HERCULES
PHONE: 51
FAX:510
www.cityme

Agreement #

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
SF 7	SUPPLY FAN	GREENHECK	W/F	W/F	OVER VAN NESS DOOR	W/F		W/F	4	24X24X4
CU 13	CONDENSING UNIT	FUJITSU	AOU36CLX1	4BN02626	ROOF	208/230-1ph		W/F		WASHABLE
FC 13	FAN COIL	FUJITSU	ASU36CLX1	HBA002467	3RD FLOOR TELECOMUNICATIO	208/230-1ph		D/D		W/F
EF 4	EXHAUST FAN	W/F	W/F	W/F	W/F	W/F	1	A77		N/A
EF 5	EXHAUST FAN	W/F	W/F	W/F	W/F	W/F	1	D/D		N/A
F 11	GAS FURANCE	W/F	W/F	W/F	W/F	W/F		D/D	1 1	18X30X1 24X24X1
DC 1	DUST COLLECTOR	TORIT	W/F	W/F	WOOD SHOP	W/F		N/A		W/F
DC 2	DUST COLLECTOR	TORIT	W/F	W/F	WOOD SHOP	W/F		N/A		W/F
DC 3	DUST COLLECTOR	TORIT	W/F	W/F	WOOD SHOP	W/F		N/A		W/F
DC 4	DUST COLLECTOR	TORIT	W/F	W/F	WOOD SHOP	W/F		N/A		W/F
EF 6	EXHAUST FAN	W/F	CAE916	W/F	BANDING ROOM	W/F		D/D	1	20X20X2 HIE
EF 7	EXHAUST FAN	PENN	Z12S	MTL960	ROOM 440	120-1ph		D/D		N/A
MAU 1	MAKE UP AIR UNIT	PENN	Z12S	MTL960	ROOM 440	120-1ph		D/D		N/A
EF 8	EXHAUST FAN	MORN	W/F	W/F	LAZER MACHINE	W/F		W/F		W/F
EF 9	EXHAUST FAN	MORN	W/F	W/F	LAZER MACHINE	W/F		W/F		W/F
EF 10	EXHAUST FAN	MORN	W/F	W/F	LAZER MACHINE	W/F		W/F		W/F
EF 11	EXHAUST FAN	MORN	W/F	W/F	LAZER MACHINE	W/F		W/F		W/F
EF 12	EXHAUST FAN	CINCINNATI	500S/T1	614094-1	LAZER MACHINE	110-1ph		N/A		N/A
EF 13	EXHAUST FAN	CINCINNATI	500S/T1	614094-1	LAZER MACHINE	110-1ph		N/A		N/A
MAU 2	MAKE UP AIR UNIT	DELHI	Z101NS	4000766	3RD FLOOR CNC ROOM	110-1ph	1	4L500	1	20X22X2 HIE
AC 1	AIR CONDITIONER	GRIZZLY	G9956	E022134	CNC ROOM	120-1ph		D/D	1 1	16X20X1 PAF 16X20X12
EF 14	EXHAUST FAN	DAYTON	5TC14	13Y69583	ROOM 310	110-1ph	1	4L420	1	20X24X1
DC 5	DUST COLLECTOR	TORIT	W/F	W/F	CNC ROOM	W/F		N/A		W/F

ES-20

NAME:	Academy of Art University		724 ALFRED NOBEL DRIVE
ADDRESS:	620 Sutter Street		HERCULES, CA. 94547
CITY:	San Francisco, California 94102		PHONE: 510-724-9088
PHONE:	(415) 305-3100		FAX:510-724-8240
CONTACT:	Mr. Rich Gonzales		www.citymechanical.com
DATE:	2/25/2013		

CITY MECHANICAL, Inc.

Code 11511 for exterior door screamer key pad alarm

Agreement #1320 through #1323

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE	PM
EF 1	EXHAUST FAN	BROAN	WF	WF	BASEMENT WOMENS LOCKER ROOM	120-1ph	0	N/A	0	N/A	1
EF 2	EXHAUST FAN	BROAN	WF	WF	BASEMENT WOMENS LOCKER ROOM	120-1ph	0	N/A	0	N/A	1
EF 3	EXHAUST FAN	BROAN	WF	WF	BASEMENT MENS LOCKER ROOM	120-1ph	0	N/A	0	N/A	1
EF 4	EXHAUST FAN	BROAN	WF	WF	BASEMENT MENS LOCKER ROOM	120-1ph	0	N/A	0	N/A	1
LEF 1	LAUNDRY EXHAUST FAN	FANTECH	DBF110	WF	BASEMENT LAUNDRY ROOM	120-1ph	0	N/A	0	WASHABLE	3
LEF 2	LAUNDRY EXHAUST FAN	FANTECH	DBF110	WF	BASEMENT LAUNDRY ROOM	120-1ph	0	N/A	0	WASHABLE	3
LEF 3	LAUNDRY EXHAUST FAN	FANTECH	DBF110	WF	BASEMENT LAUNDRY ROOM	120-1ph	0	N/A	0	WASHABLE	3
LEF 4	LAUNDRY EXHAUST FAN	FANTECH	DBF110	WF	BASEMENT LAUNDRY ROOM	120-1ph	0	N/A	0	WASHABLE	3
FC 1	FAN COIL	YORK	FA1Z0CAC00A6AAA6A	N0H18222122	BASEMENT WOMANS LOCKER	WF	1	A55	3	20X30X4	1
FC 2	FAN COIL	YORK	APHP60DBAH21B	A0G6049832	BASEMENT JANITORIAL CLOSET	WF		DD	1	22X22X1	1
AF 1	AIR FILTER	GRILLE	WF	WF	BASEMENT THERAPY	N/A	0	N/A	1	20X20X1	1
IM 1	ICE MACHINE	HOSIKAZI	F450MAHC	U013034	BASEMENT THERAPY	120-1ph		DD	1	WASHABLE	4
MUA 1	MAKE UP AIR	CAPATIVE AIRE	A2G15	1038092	3RD FLOOR ROOF	208-3ph	2	BX51	6	16X20X2 MESH DURA COOL MEDIA	2
EF 5	EXHAUST	CAPATIVE AIRE	WF	WF	5TH FLOOR ROOF	208-3ph	2	B50		N/A	1
EF 6	EXHUAST	ACME	WF	WF	3RD FLOOR ROOF	208-3ph		WF		N/A	1
CU 1	CONDENSOR UNIT	YORK	EIRD060525B	W0H8175323	3RD FLOOR ROOF	208-230		DD		N/A	1
CU 2	CONDENSOR UNIT	YORK	EA120C0CAZAAA1A	A10H8218450	3RD FLOOR ROOF	208-230		DD		N/A	1
FC 3	FAN COIL	FUJITSU	ASU36CLX1	9802	3RD FLOOR SERVER ROOM	208/230-1ph		D/D		N/A	1
CU 3	CONDENSOR UNIT	FUJITSU	AOU36CLX1	10563	3RD FLOOR ROOF	208/230-1ph		D/D		WASHABLE	1
DEF	DISHWASHER EXHAUST FAN	FANTECH	FR250 (5C519)	1305390	2ND FLOOR RM 209 DISHWASHER	115-1ph		N/A		N/A	

**NEED 10' LADDER FOR BASEMENT FAN COIL, GET KEY FROM SECURITY FOR REAR STAIRWELL BEHIND STAGE OF SPIN BIKE FOR GROUND FLOOR GYM.

** NEED TO CALL ANGELA TO PRE SCHEDULE AT (415) 378-3086

[redacted]

ES-25

NAME: Academy of Art University
ADDRESS: 540 Powell Street
CITY: San Francisco, CA
PHONE: (415) 994-0661
CONTACT: Rich Gonzales

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	BELTS	# FILTERS/SIZE	Service Check Off
MUA1	Make Up Air Unit	Frigiking	FD650A	1053004	Lower Roof Light Well 2nd Flr.	120 1p	1-A67	4-30X36 Media	
MUA2	Make Up Air Unit	Frigiking	FD650A	1053007	Lower Roof Light Well 2nd Flr.	120 1p	1-A67	4-30X36 Media	
EF1	Exhaust Fan	Dayton	4HX 81A	03L21465	Lower Roof Light Well 2nd Flr.	208 3p	4L200	N/A	
EF2	Exhaust Fan	Greenheck	SWB220LMDXQD	04A00059	Roof	208 3p	1-A45	N/A	
EF3	Exhaust Fan	Greenheck	SWB220LMDXQD	03L21465	Roof	208 3p	1-A45	N/A	

Customer Signature:

Upon Inspection Our Technician Recommends the Following:

1)

2)

3)

4)

ES-26

NAME: Academy of Art University
ADDRESS: 410 Bush Street
CITY: San Francisco, California 94108
PHONE: (415) 994-0661
CONTACT: Mr. Richard Gonzales
DATE: 4/9/2015

CITY MECHANICAL, Inc.

HVAC / Steam

Agreement #

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPT	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
SF 1	SUPPLY FAN	FLOAIRE	SA18	841345	UPPER ROOF	208-3ph	1	A62	6	WASHABLE (NEED SIZE)
EF 2	EXHAUST FAN	FLOAIRE	B122FA	841345	UPPER ROOF	208-3ph	2	BX47		WF
EF 3	EXHAUST FAN	DAYTON	4C661A	WF	UPPER ROOF	120-1ph	1	A38		WF
EF 4	EXHAUST FAN	DAYTON	3C716	WF	UPPER ROOF	120-1ph	1	A26		WF
SF 2	SUPPLY FAN	GREENHECK	RSF148050X	04E27463118	UPPER ROOF	208-3ph	1	B67	4 4	16X20X1 WASHABLE 20X20X1 WASHABLE
EF 5	EXHAUST FAN	GREENHECK	SFB1850C	04E27118	UPPER ROOF	208-3ph	1	B51		WF
EF 6	EXHAUST FAN	DAYTON	3C716	WF	2ND FLOOR	115/230-1ph	1	A26		WF
EF 7	EXHAUST FAN	GREENHECK	SFB1615C	4609884	LOWER ROOF	WF	1	A34		WF
SF 3	SUPPLY FAN	CARRIER	40RM2008	3499F44012	BASEMENT	208-3ph	1	A39	4	16X24X2 HIE DRIP
EF 13	EXHAUST FAN	STURTEVANT	F21944	S8OLD8	BASEMENT	208-3ph	2	B90		WF
EF 9	EXHAUST FAN	GREENHECK	QE120150X	06C25139	UPPER ROOF	208-3ph	2	A58		WF
EF 10	EXHAUST FAN	GREENHECK	QE120150X	06C25138	UPPER ROOF	208-3ph	2	A58		WF
SF 4	SUPPLY FAN	GREENHECK	BSQ240BP50X	06C05014	2ND FLOOR HALL	208-3ph	1	A76	8	20X25X2
SF 5	SUPPLY FAN	GREENHECK	BSQ240BP50	06C05015	2ND FLOOR HALL	208-3ph	1	A76	8	20X25X2
WSR 1	EXHAUST FAN	DELHI	B120RM	815776	REAR LOWER ROOF	230-3ph	2	BX46		WF
WSS 1	EXHAUST FAN	FLOAIRE	SA18	915776	REAR LOWER ROOF	230-3ph	1	BX64		WASHABLE (NEED SIZE)
EF 1	EXHAUST FAN	DAYTON	3C04A	WF	UPPER ROOF	208-3ph	1	B46		WF
EF 8	EXHAUST FAN	PENN	D18	WEO814801	2ND FLOOR LIGHT WELL	WF	1	A42		WF
CU 1	CONDENSING UNIT	FUJITSU	AOU36CLX1	HBN005779	LOWER ROOF	208/230-1ph		N/A		WASHABLE
FC 1	FAN COIL	FUJITSU	ASU36CLX1	HBA005886	1ST FLOOR TELECOM	208/230-1ph		D/D		N/A
CRS 1	CONDENSATE RETURN STATION	ITT	5VLR1203	0E6080SA070 4182-001	STEAM ROOM	230		D/D		N/A
SSO	STEAM SHUT OFF	ITT	HV62PN211JF1J5	7920A	STEAM ROOM	120-1		D/D		#H3CA1120511F1
SSV	STEAM SHUT OFF VALVE	ITT	V711AAS5	MIL-H5606	STEAM ROOM	120-1		D/D		OPEN 5 1/28 SEC CLOSE 15-24 SEC
ST 1	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	STEAM ROOM	N/A		N/A		

ES-26

NAME: Academy of Art University
ADDRESS: 410 Bush Street
CITY: San Francisco, California 94108
PHONE: (415) 994-0661
CONTACT: Mr. Richard Gonzales
DATE: 4/9/2015

CITY MECHANICAL, Inc.

HVAC / Steam

Agreement #

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPT	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
ST 2	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	CLASS ROOM 040	N/A		N/A		
ST 3	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	CLASS ROOM 040	N/A		N/A		
ST 4	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	BASEMENT HALLWAY	N/A		N/A		
ST 5	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	GARAGE 1	N/A		N/A		
ST 6	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	GARAGE 2	N/A		N/A		
ST 7	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	Garage Storage room	N/A		N/A		
ST 8	FLOAT & THERMOSTATIC	ITT	FH-015-4	1"	GARAGE FAN ROOM	N/A		N/A		
TSAT	TSAT Controler	Honeywell	T775P2003	W/F	GARAGE WALL	120-1		N/A		N/A
EVAP 1	EVAPORATOR FAN	CARRIER	40QAQ036-301	0812V31391	ROOM 220	208-1ph		N/A		N/A
HP	HEAT PUMP	CARRIER	38QRR036600	1113X93152	LIGHTWELL OUTSIDE ROOM 220	208-3ph		N/A		N/A
CU 2	CONDENSING UNIT	W/F	W/F	W/F	ROOF	W/F		W/F		W/F
CU 3	CONDENSING UNIT	W/F	W/F	W/F	ROOF	W/F		W/F		W/F
FC 2	FAN COIL	W/F	W/F	W/F	ROOM 100	W/F		W/F		W/F
FC 3	FAN COIL	W/F	W/F	W/F	ROOM 100	W/F		W/F		W/F
CP 1	CONDENSATE PUMP	W/F	W/F	W/F	ROOM 100	W/F		W/F		W/F
CP 2	CONDENSATE PUMP	W/F	W/F	W/F	ROOM 100	W/F		W/F		W/F

ES-27

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

NAME: Academy of Art University
ADDRESS: 79 New Montgomery Street
CITY: San Francisco, California 94105
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 4/18/2013

Agreement #

HVAC

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
CP 3	CONDENSATE PUMP	HARTELL	KT3X1UL	WF	ROOM 225	120-1ph		N/A		N/A
EF 1	EXHAUST FAN	DAYTON	2C973	WF	SCHEMATIC ROOM CEILING - 2ND FLR	208-1ph	1	A33		WF
AH 35	SPLIT SYSTEM	YORK	F2FP060H06G	A0A5490549	230 B	208-1ph		DD	2	20X20X1
AH 36	SPLIT SYSTEM	YORK	F2FP060H06G	A0A5490539	230 C,D,E	208-1ph		DD	3	20X20X1
**EF 32	EXHAUST FAN	WF	WF	WF	MECH ROOM NEAR B82	208-3ph	1	B120		WF
**TC 1	TIME CLOCK	N/A	N/A	N/A	MECH ROOM NEAR B82	N/A		N/A		N/A
CU 33	CONDENSER UNIT	YORK	H3RA060S06G	WOH5623690	230B/2ND FL LANDING	208-1ph		N/A		N/A
CU 34	CONDENSER UNIT	YORK	H3RA060S06G	WOH5623690	230D/2ND FL LIGHT WELL	208-1ph		N/A		N/A
HP 1	HEAT PUMP	YORK	AHP60D3XH21B	AOF8999438	ROOM 100	208-1ph		N/A		N/A
CU 35	CONDENSER UNIT	WF	WF	WF	3RD FLOOR PATIO	WF		WF		WF
HP5-4	HEAT PUMP	YORK	YHJD3654354A	WIK0346498	ROOF TOP	208/230		DD		N/A
FC18	FAN COIL	YORK	AHP36C3XH2H	WI60124298	ROOM 521	208/230		DD		W/F
EU 26	EVAPORATOR UNIT	YORK	WF	WF	ROOM 521	208/1 ph		WF	1	20X24X1
CU 36	CONDENSER UNIT	YORK	WF	WF	ROOF	208/3 ph		WF		WF
EU 1	EVAPORATOR UNIT	YORK	AHP60D3XH21B	A068049720	ROOM 140	208-1ph		N/A	1	22X22X1
EU 2	EVAPORATOR UNIT	YORK	AHP60D31H21B	A068049735	ROOM 140	208-1ph		N/A	1	22X22X1
EU 3	EVAPORATOR UNIT	YORK	AHP60D3XH21B	A0P899435	ROOM 100	208-3ph		N/A	1	22X22X1
EU 4	EVAPORATOR UNIT	YORK	AHP60D3XH21B	A0G8049737	ROOM 130	208-3ph		N/A	1	22X22X1
EU 5	EVAPORATOR UNIT	ICP	ABC120M1AA BAC120M9AA	2607419531	BASEMENT WEST	208	1	A39	4	16X24X2
EU 6	EVAPORATOR UNIT	ICP	ABC090M1AA BAC090M1AA	2707410678	BASEMENT EAST	208	1	A39	4	16X24X2
EU 8	EVAPORATOR UNIT	DAY & NIGHT	FSM48600A	A09408184	ROOM 570	208-1ph		N/A	1	20X24X1 HIE
EU 9	EVAPORATOR UNIT	DAY & NIGHT	FSM48360A	W/F	ROOM 560	208-1ph		N/A	1	20X22X1 HIE
EU 10	EVAPORATOR UNIT	DAY & NIGHT	FSM4X360A	A09284000	ROOM 550	208-1ph		N/A	1	20X22X1 HIE
EU 11	EVAPORATOR UNIT	DAY & NIGHT	FSM4X608A	A094284860	6TH FLOOR 612-B HUMAN RESOURES	208-1ph		N/A	1	22X22X1 HIE
CU 1	CONDENSER UNIT	YORK	HIRD060525B	W0G8646733	MEZZANINE	208-3ph		N/A		N/A
CU 2	CONDENSER UNIT	YORK	HIRD060525B	W0G8046731	MEZZANINE	208-3ph		N/A		N/A

ES-27

NAME: Academy of Art University
ADDRESS: 79 New Montgomery Street
CITY: San Francisco, California 94105
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 4/18/2013

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

HVAC

Agreement #

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
CU 3	CONDENSER UNIT	YORK	EIRD060525B	W0F8033201	2ND FLOOR LIGHT WELL	208-3ph		N/A		N/A
CU 4	CONDENSER UNIT	YORK	EIRD060525B	W0F8033204	2ND FLOOR LIGHT WELL	WF		N/A		N/A
CU 5	CONDENSER UNIT	ICP	CAE120HAA	G082720164	2ND FLOOR PATIO	208-3ph		N/A		N/A
CU 6	CONDENSER UNIT	ICP	CAE091HAA	G072810194	3RD FLOOR PATIO	208-3ph		N/A		N/A
CU 8	CONDENSER UNIT	DAY & NIGHT	N4H360GHB400	E093706771	ROOF WEST SIDE	208-3ph		N/A		N/A
CU 9	CONDENSER UNIT	DAY & NIGHT	N4H336GHB300	E092711032	ROOF SOUTH SIDE	208-3ph		N/A		N/A
CU 10	CONDENSER UNIT	DAY & NIGHT	N4H336GHB300	E092741035	ROOF SOUTHEAST CORNER	208-3ph		N/A		N/A
CU 11	CONDENSER UNIT	DAY & NIGHT	N4H360GHB400	E092710928	UPPER ROOF	208-3ph		N/A		N/A
FC 1	FAN COIL	ICP	FEM2X6000A	A082989320	ROOM 212	208-1ph		DD	1	20X24X1
FC 2	FAN COIL	ICP	FEM2X6000A	A082489326	ROOM 214	208-1ph		DD	1	24X24X1
FC 3	FAN COIL	ICP	FSM2X6000A	A083484932	ROOM 240	208-1ph		DD	1	20X24X1
HP 1	HEAT PUMP	ICP	N2H360AHC100	E08350686	3RD FLOOR	208-3ph		N/A		N/A
HP 2	HEAT PUMP	ICP	N2H360AHC100	E08350606	3RD FLOOR PATIO	208-3ph		N/A		N/A
HP 3	HEAT PUMP	ICP	N2H360AHC100	E083506756	3RD FLOOR PATIO	208-3ph		N/A		N/A
CU 37	CONDENSING UNIT	YORK	YHJD3654354A	W1H1271306	ROOF	208-3ph		D/D		N/A
FC 19	FAN COIL	YORK	AM360RT	7111K04579	ROOM 524	208-1		D/D	1	22X22X1 PLEATED
CU 38	CONDENSING UNIT	YORK	YHJD3654354A	W1H1271305	CEILING	208-3ph		D/D		N/A
FC 20	FAN COIL	YORK	AM360RT	7111K04586	ROOM 535	208-1		D/D	1	22X22X1 PLEATED
CU 39	CONDENSING UNIT	YORK	YHJD3654354A	W1H1271313	CEILING	208-3ph		D/D		N/A
FC 21	FAN COIL	YORK	AM360RT	7111L08282	ROOM 537	208-1		D/D	1	22X22X1 PLEATED
AH 37	SPLIT SYSTEM	FUJITSU	AOU24CL1	GDN014347	ROOF	208/230-1ph		D/D		WASHABLE
AH 38	SPLIT SYSTEM	FUJITSU	AOU24CL1	GDN014558	ROOF	208/230-1ph		D/D		WASHABLE
EU 12	EVAPORATOR UNIT	FUJITSU	ASU24CL	GDN014347	2ND FLOOR CLOSET	208-1ph		D/D		N/A
EU 13	EVAPORATOR UNIT	FUJITSU	ASU24CL	GDA011893	4TH FLOOR CLOSET	208-1ph		D/D		N/A
CU 40	CONDENSER	FUJITSU	AOU36CLX1	HBN012340	ROOFTOP	208/230-1ph		D/D		WASHABLE
EU 14	EVAPORATOR UNIT	FUJITSU	AOU36CLX1	HBA013386	ELEVATOR ROOM	208/230-1ph		D/D		WASHABLE

ES-28

NAME: Academy of Art University
ADDRESS: 180 New Montgomery Street
CITY: San Francisco, California 94105
PHONE: (415) 305-3100
CONTACT: Mr. Rich Gonzales
DATE: 9/13/2012

CITY MECHANICAL, Inc.

Room 808

Agreement #

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE	AGE	BUDGET REPLACEMENT COST
CU 2	CONDENSING UNIT	YORK	YHJD6054454A	WIE1999962	ROOF	460-3ph		D/D	2	22x22x1 HIE		
FC 4	FAN COIL	YORK	AM600CT	7111B00890	ROOM 808	230-1ph		D/D	1	20X25X1 HIE		
CP 1	CONDENSATE PUMP	LITTLE GIANT	W/F	W/F	W/F	120-1ph		D/D		N/A		

ES-28

ʼAME: Academy of ᴬʳᵗ University
ᴰDRESS: 180 New M...mery Street
ᶜTY: San Francisco, California 94105
ᴾHONE: (415) 994-0661
ᶜONTACT: Mr. Rich Gonzales

CITY MECHANICAL, INC.

HERCULES, CA. 94547
PHONE: 510-724-9088
FAX 510-724-8240
www.citymechanical.com

COMBINED EQUIPMENT LIST

DATE: 11/2/2011 Updated

Agreement # 668

UNIT #	EQUIPMENT DESCRIPTI	MAKE	MODEL #	SERIAL #	UNIT/STAT. LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE	AGE	BUDGET REPLACEMENT COST
P 8-1	Heat Pump	Carrier	50RHR060SCC60130	3402V27203	8th floor Rm. 821	460 - 3ph		W/F	2	20x20x1	2002	$9,250.00
P 8-1A	Circulating Pump	B & G	NRF-22 103251	W/F	8th floor Rm. 821. 1 inch pipe.	115v		N/A		N/A	2002	$1,250.00
P 8-4	Heat Pump	Carrier	50RHR060SCC60130	3402V27195	8th floor Rm. 806	460 - 3ph		N/A	2	20x20x1	2002	$9,250.00
P B-1	Heat Pump	Carrier	50RHR060BCC60130	2902V25539	Basement Unit B-80 Case Office	460 - 3ph		N/A	2	20x20x1	2002	$9,250.00
T 1	Cooling Tower	Baltimore Air Coil	TMA250AL	65-6265	Roof	460 - 3ph	4 4	B90 B83		N/A	1965	$150,000.00
T 2	Cooling Tower	Baltimore Air Coil	VX1182R	84-7857M	Roof	460 - 3ph	1	B68		N/A	1984	$47,000.00
F 1	Supply Fan - Comfort	Westinghouse	8054 SFY6375-6	W/F	Roof	460 - 3ph	3	CP195	28	24x24x18 95% 6 Pocket Bag Filter	1964	$85,000.00
F 1	Return Fan	Westinghouse	W/F	W/F	Roof	460 - 3ph	4	B225		N/A	1964	$30,000.00
T 3	Cooling Tower	Marley	Aqua Tower 84603-1	NB22152A/4842	Ground behind building	W/F	1	A112		N/A	1984	$24,000.00
P B-2	Heat Pump	Carrier	50RHC060ZDC30140	3203V19370	Basement/B-25	208-230 - 1ph		N/A	2	20x20x1	2003	$9,250.00
H 3	Chiller	Trane	CGWD0604CJ0HAY101FFOUG	U97C00816	Mech. Rm.	460 - 3ph		N/A		N/A	1997	$90,000.00
F 2	Supply Fan - Comfort	Westinghouse	W/F	W/F	Roof	460 - 3ph	6	B158	15	24x24x18 95% 6 Pocket Bag Filter	1964	$47,500.00
F 3	Supply Fan - Comfort	Westinghouse	W/F	W/F	Roof	460 - 3ph	4	B128	10	24x24x18 95% 6 Pocket Bag Filter	1964	$47,500.00
F 4	Supply Fan - Window Bank	Westinghouse	W/F	W/F	Roof	460 - 3ph	2	B83	4	24x24x18 95% 6 Pocket Bag Filter	1964	$21,500.00
P 3-7	Heat Pump	W/F	GRV048AFD30CLTS	C14290157	SERVER ROOM 3RD FLR. RM. 315	460 - 3ph		W/F	2	14x30x1	2009	$7,400.00
F 6	Supply Fan	Westinghouse	W/F	A17211	Window Bank	460 - 3ph	2	B85	4	24x24x18 95% 6 Pocket Bag Filter	1964	$21,500.00
F 8	Supply Fan	Westinghouse	W/F	W/F	Roof	N/A		N/A	4	24x24x18 95% 6 Pocket Bag Filter	1964	$21,500.00
EF 1	Exhaust Fan	Westinghouse	ECYB3568030-1	W/F	W/F	460 - 3ph	2	B96		N/A	1964	$8,500.00
RF 3	Return Fan	Westinghouse	sfy6375-9size 8045	W/F	W/F	460 - 3ph	2	B162		N/A	1964	$8,500.00
EF 3	Exhaust Fan	Dayton	W/F	W/F	W/F	460 - 3ph	1	A33		N/A	5+	$3,500.00
SF 7	Supply Fan	Westinghouse	W/F	W/F	8th Flr./Roof	460 - 3ph	2	B71	2	Bag Filters	1964	$4,500.00
RF 2	Return Fan - Comfort Coil	Westinghouse	W/F	W/F	Roof	460 - 3ph	3	B173		N/A	1964	$8,500.00
EF 2	Exhaust Fan	Sturtevant	348111	W/F	Roof	460 - 3ph	2	B120		N/A	1964	$8,500.00
HP 4-1	Heat Pump	Carrier	50RVR060LCC50B0	3202V26906	4th Floor Server	460 - 3ph		D/D		14x30x1	2002	$9,250.00
FC 1-1	Fan Coil	Pace	W/F	W/F	Room 111/.1st Floor Hallway	208 - 1ph	1	A33	1	16x25x2	5+	$18,500.00
HP 8-6	Heat Pump	FHP Heat & Air	ECO60-4HZC	3540009000001T11M04056	8th Floor, Room 804	460 - 3ph		N/A	2	20X20X1	2000	$9,250.00

ES-30

NAME: Academy [illegible] University
ADDRESS:60 Federal Street
CITY: San Francisco
PHONE: 415-994-0661
CONTACT: RICHARD GONZALES

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	BELTS	# FILTERS/SIZE	Service Check Off
F1-1	Furnace	York	GY9S100	WODE9290	REC ROOM	120-1	N/A	WASHABLE	
F1-2	Furnace	York	GY9S100	WOE5019850	RM 110 MECH ROOM	120-1	N/A	14x24x1 WASHABLE	
F1-3	Furnace	York	GY9S100	WOE5019900	RM 110 MECH ROOM	120-1	N/A	14x24x1 WASHABLE	
F2-1	Furnace	York	GY9S100	WOS5673286	ROOM 200	120-1	N/A	14x24x1 WASHABLE	
F2-2	Furnace	York	GY9S100	WOCS673278	ROOM 215	120-1	N/A	WASHABLE	
F2-3	Furnace	York	GY9S100	WOC5673298	ROOM 220	120-1	N/A	WASHABLE	
F2-4	Furnace	York	GY9S100	WOC5673282	ROOM 225	120-1	N/A	WASHABLE	
F2-5	Furnace	York	GY9S100	WOC5673299	ROOM 210	120-1	N/A	WASHABLE	
F2-6	Furnace	York	C16UP11GGY 9S100	EAGMOWOC5 673300	ROOM 205	120-1	N/A	WASHABLE	
F4-1	Furnace	York	NO95D1AP3U RD20	20990	ROOM 405	120-1	N/A	WASHABLE	
F4-3	Furnace	York	GY9S100	W0F5340408	ROOM 404	120-1	N/A	WASHABLE	
AC1	PACKAGE UNIT	York	D1NA060	NBGM02843	ROOF RM 501	208-230-1	D/D	WASHABLE 1-20X20X1	
EX-1	EXHAUST FAN	greenheck	SWB22030	01H05533	ROOF	208-230-3	2-A40	N/A	
CU1	CONDENSING UNIT 4-1B	York	H2RA060	EAGM0214	ROOF	208-230-1	D/D	N/A	
CU2	CONDENSING UNIT	York	E1RR0605066	WOK5854099	ROOF - RM 403	208/230	D/D	N/A	
FC1	FAN COIL 4-1B/4-2B	York	W/F	W/F	ROOM 401-403	208-230-1	W/F	W/F	
CP1	CONDENSATE PUMP	LITTLE	VCL24ULS	14085509	ROOM 405	120-1	D/D	14x24x1	
CP2	CONDENSATE PUMP	LITTLE	VCL24ULS	14085509	ROOM 401-403	120-1	D/D	N/A	
EF 5-1	EXHAUST FAN	GREENHECK	SWB2127CC WUBX	01H05526	ROOF	208-1	1-A27	N/A	
EF 3-2	EXHAUST FAN	DAYTON	3C073A		ROOF	208-1	1-A32	NA	

ES-30

NAME: Academy University
ADDRESS:60 Federal Street
CITY: San Francisco
PHONE: 415-994-0661
CONTACT: RICHARD GONZALES

CITY MECHANICAL, Inc.

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	BELTS	# FILTERS/SIZE	Service Check Off
EF 3-3	EXHAUST FAN	DAYTON	3C073A		ROOF	208-2	1-A32	NA	
SF 3-1	SUPPLY FAN	DAYTON	4YC83		ROOF (3-1)	208-1	A-53	1- 20X25X2 WASHABLE 1 -17X25X2 WASHABLE	
SF 2	SUPPLY FAN	GREENHECK	RSF-903-3X	01H05659	ROOF	460-3	1-A34	4- 11 1/2 X 19 1/2 X 2 WASHABLE	
F5-1	FURNACE	RHEEM	RCLC07NCGR	F4086	Room 550 Closet	115	D/D	(1) 16X20X1 H.E.	
F5-2	FURNACE	YORK	GY95100C16UP11H	W0G5466395	Room 506 Closet	115	D/D	1-16X24X1 WASHABLE	
F5-3	UNIT HEATER	DAYTON	3E368	C8627799	ROOM 505	4/24/1900	D/D	N/A	
EF 5-1	EXHAUST FAN	GREENECK	SWB2127-CCWE2X	01M05626	ROOF		1-A27	N/A	

Customer Signature:

Upon Inspection Our Technician Recommends the Following:

1)

2)

3)

4)

ES-30

NAME: Academy of Art University
ADDRESS: 60 Federal Street
CITY: San Francisco, California 94107
PHONE: Rich Gonzales
CONTACT: (415) 305-3100
DATE: 9/14/2012

CITY MECHANICAL, Inc.

4th & 5th Floor Server Room

Agreement #

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE	AGE	BUDGET REPLACEMENT COST
FC 2	FAN COIL	FUJITSU	ASU24CL1	GDA007415	4TH FLOOR SERVER ROOM	208-1ph		D/D		WASHABLE	2012	
CU 3	CONDENSING UNIT	FUJITSU	AOU24C1	GDN004378	ROOF	208-1ph		D/D		N/A	2012	
CP 3	CONDENSATE PUMP	DIVERSITECH	CVN1N1	W/F	W/F	120/240-1ph		D/D		N/A	2012	
FC 3	FAN COIL	FUJITSU	ASU24CL1	GDA007418	5TH FLOOR SEVER ROOM	208-1ph		D/D		WASHABLE	2012	
CU 4	CONDENSING UNIT	FUJITSU	AOU24C1	W/F	ROOF	208-1ph		D/D		N/A	2012	
CP 4	CONDENSATE PUMP	DIVERSITECH	CVM1N1	W/F	W/F	120/240-1ph		D/D		N/A	2012	

ES-34

NAME: Academy of Art University
ADDRESS: 466 Townsend Street
CITY: San Francisco, California 94107
PHONE: (415) 994-0661
CONTACT: Mr. Rich Gonzales
DATE: 1/13/2014

CITY MECHANICAL, Inc.

Agreement #746 & 1794

724 ALFRED NOBEL DRIVE
HERCULES, CA. 94547
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
DC 2	DRY COOLER	CARRIER	DDNT940A	0025C32967	ROOF	460-3ph		N/A		N/A
DC 3	DRY COOLER	CARRIER	DDNT940A	0025C32969	ROOF	460-3ph		N/A		N/A
DC 4	DRY COOLER	CARRIER	DDNT940A	0034C36836	ROOF	460-3ph		N/A		N/A
DC 5	DRY COOLER	CARRIER	DDNT940A	0025C32973	ROOF	460-3ph		N/A		N/A
DC 6	DRY COOLER	CARRIER	DDNT940A	0025C32972	ROOF	460-3ph		N/A		N/A
RSF 1	ROOF SUPPLY FAN	GREENHECK	RSF-150-30-X	05J26843	ROOF	460-3ph	1	A55		WASHABLE
**CU 1	CONDENSING UNIT - **NOT IN USE**	CARRIER	38YCC042621	WF	ROOF	460-3ph		D/D		N/A
**CU 2	CONDENSING UNIT - **NOT IN USE**	CARRIER	38YCC042621	WF	R	460-3ph		D/D		N/A
**FC 1	FAN COIL - **NOT IN USE**	CARRIER	FX4N048	WF	2ND FLOOR	208-1ph		D/D	1	20X25X1
**FC 2	FAN COIL - **NOT IN USE**	CARRIER	FX4N036	WF	3RD FLOOR	208-1ph		D/D	1	20X20X1
FC 1	FAN COIL	LG	ARNU363TNC2	303KAPB00160	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 2	FAN COIL	LG	ARNU363TNC2	303KAHG00161	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 3	FAN COIL	LG	ARNU363TNC2	303KAPB00184	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 4	FAN COIL	LG	ARNU363TNC2	303KANY00175	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 5	FAN COIL	LG	ARNU363TNC2	303KAAE00176	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 6	FAN COIL	LG	ARNU363TNC2	303KAYR00162	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 7	FAN COIL	LG	ARNU363TNC2	303KAUU00174	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 8	FAN COIL	LG	ARNU363TNC2	303KAYR00186	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 9	FAN COIL	LG	ARNU363TNC2	303KAHG00185	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 10	FAN COIL	LG	ARNU363TNC2	303KABF00133	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 11	FAN COIL	LG	ARNU363TNC2	303KACA00163	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
FC 12	FAN COIL	LG	ARNU363TNC2	303KAQJ00164	2ND FLOOR OPEN SPACE	208-1ph		D/D		WASHABLE
CU 1	CONDENSING UNIT	LG	ARUN144DT3	204KANY00007	ROOF	460-3ph		W/F		W/F
CU 2	CONDENSING UNIT	LG	ARUN144DT3	205KAZK00005	ROOF	460-3ph		W/F		W/F
CU 3	CONDENSING UNIT	LG	ARUN144DT3	204KAVH00015	ROOF	460-3ph		W/F		W/F
SC 1	SMART CONTROLLER	DAYTON	PQCSW320A1E	AAA34551716	2ND FLOOR ELECTRICAL ROOM	120-1ph		N/A		N/A

NAME: Academy of Art University
ADDRESS: 950 Van Ness Avenue
CITY: San Francisco, California 94109
PHONE: (415) 305-3100
CONTACT: Rich Gonzales
DATE: 8/12/2015

CITY MECHANICAL, Inc.

Agreement #

724 ALFRED NOBEL DRIVE, HERCULES CALIFRONIA 94547
888 MARIN STREET, SAN FRANCISCO CALIFORNIA 94124
PHONE: 510-724-9088
FAX:510-724-8240
www.citymechanical.com

UNIT #	EQUIPMENT DESCRIPTION	MAKE	MODEL #	SERIAL #	UNIT/STAT LOCATION	ELECTRICAL	QTY	BELTS	QTY	FILTERS/SIZE
CU 1	CONDENSING UNIT	COPELAND	FFAP-0172CFV	14BA1851U	LOWER ROOF	208/230-1		D/D		N/A
FC 1	FAN COIL	HEAT CRAFT	WE17-35A	E150007166980	FUR ROOM	115-1		D/D		W/F
STAT 1	THERMOSTAT	DAYTON	W/F	W/F	FUR ROOM	24V		D/D		N/A

APPENDIX AQ:

Air Quality

APPENDIX A

Air Quality

Criteria Pollutant Emissions. CalEEMod (version 2013.2.2) was used to calculate construction and operational criteria pollutant emissions. In addition, EMFAC2011 and AP42 air emission equations were used to calculate bus and boiler emissions, respectively. Since The construction emissions in the operational CalEEMod runs were not used to estimate construction emissions as construction emissions were modeled in a separate CalEEMod run (see sub-section 1, below). The following sub-sections are included in this Appendix below:

1. CalEEMod Construction Outputs – Summer (pounds per day)
2. CalEEMod Operational Outputs– Summer (pounds per day)
3. CalEEMod Operational Outputs– Annual (tons per year)
4. Boiler Modeling Assumptions and Emissions
5. AAU Shuttle Bus Modeling Assumptions and Criteria Pollutant Emissions
6. Cumulative Year 2010 Outputs - Summer (pounds per day)
7. Cumulative Year 2010 Outputs - Annual (tons per year)
8. Cumulative Year 2016 Outputs - Summer (pounds per day)
9. Cumulative Year 2016 Outputs - Annual (tons per year)

1. CalEEMod Construction Outputs – Summer (pounds per day)

AAU Past Renovation

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	200.00	1000sqft	4.59	200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumed one month to renovate two 100,000 sq ft AAU buildings.

Off-road Equipment - Asssumed construction equipment.

Off-road Equipment - Assumed construction equipment and durations. HP and LF were left as CalEEMod defaults.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	67.00
tblOffRoadEquipment	HorsePower	62.00	63.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Renovations
tblOffRoadEquipment	PhaseName		Renovations
tblOffRoadEquipment	PhaseName		Renovations
tblOffRoadEquipment	PhaseName		Renovations
tblOffRoadEquipment	PhaseName		Renovations
tblProjectCharacteristics	OperationalYear	2014	1990
tblTripsAndVMT	VendorTripNumber	0.00	33.00
tblTripsAndVMT	WorkerTripNumber	35.00	84.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
1990	10.7253	36.7497	118.9808	2.5343	0.9151	2.3313	3.2463	0.2754	2.3313	2.6066	0.0000	2,837.686 8	2,837.686 8	0.9342	0.0000	2,857.304 6
Total	**10.7253**	**36.7497**	**118.9808**	**2.5343**	**0.9151**	**2.3313**	**3.2463**	**0.2754**	**2.3313**	**2.6066**	**0.0000**	**2,837.686 8**	**2,837.686 8**	**0.9342**	**0.0000**	**2,857.304 6**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
1990	10.7253	36.7497	118.9808	2.5343	0.9151	2.3313	3.2463	0.2754	2.3313	2.6066	0.0000	2,837.686 8	2,837.686 8	0.9342	0.0000	2,857.304 6
Total	**10.7253**	**36.7497**	**118.9808**	**2.5343**	**0.9151**	**2.3313**	**3.2463**	**0.2754**	**2.3313**	**2.6066**	**0.0000**	**2,837.686 8**	**2,837.686 8**	**0.9342**	**0.0000**	**2,857.304 6**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5586	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611
Energy	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739
Mobile	89.4318	104.8707	996.2220	7.4923	11.9332	1.2877	13.2208	3.4426	1.2877	4.7303		20,765.3901	20,765.3901	6.0658		20,892.7711
Total	**95.0923**	**105.7976**	**997.0670**	**7.4978**	**11.9332**	**1.3583**	**13.2914**	**3.4426**	**1.3583**	**4.8009**		**21,877.4403**	**21,877.4403**	**6.0879**	**0.0204**	**22,011.6061**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5586	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611
Energy	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739
Mobile	89.4318	104.8707	996.2220	7.4923	11.9332	1.2877	13.2208	3.4426	1.2877	4.7303		20,765.3901	20,765.3901	6.0658		20,892.7711
Total	**95.0923**	**105.7976**	**997.0670**	**7.4978**	**11.9332**	**1.3583**	**13.2914**	**3.4426**	**1.3583**	**4.8009**		**21,877.4403**	**21,877.4403**	**6.0879**	**0.0204**	**22,011.6061**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Renovations	Demolition	5/1/1990	8/1/1990	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Renovations	Aerial Lifts	2	4.00	63	0.31
Renovations	Generator Sets	2	4.00	84	0.74
Renovations	Pressure Washers	1	4.00	13	0.30
Renovations	Signal Boards	1	8.00	6	0.82
Renovations	Welders	2	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Renovations	14	84.00	33.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Renovations - 1990

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3789	23.0397	10.7348	1.4932		1.9403	1.9403		1.9403	1.9403		1,095.1219	1,095.1219	0.3937		1,103.3904
Total	**4.3789**	**23.0397**	**10.7348**	**1.4932**		**1.9403**	**1.9403**		**1.9403**	**1.9403**		**1,095.1219**	**1,095.1219**	**0.3937**		**1,103.3904**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6309	8.8696	52.3240	0.8241	0.1791	0.3549	0.5340	0.0589	0.3549	0.4138		595.9157	595.9157	0.1964		600.0404
Worker	3.7155	4.8404	55.9220	0.2170	0.7360	0.0361	0.7721	0.2165	0.0361	0.2526		1,146.6491	1,146.6491	0.3440		1,153.8738
Total	**6.3463**	**13.7100**	**108.2461**	**1.0411**	**0.9151**	**0.3910**	**1.3061**	**0.2754**	**0.3910**	**0.6664**		**1,742.5648**	**1,742.5648**	**0.5404**		**1,753.9142**

3.2 Renovations - 1990

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3789	23.0397	10.7348	1.4932		1.9403	1.9403		1.9403	1.9403	0.0000	1,095.1219	1,095.1219	0.3937		1,103.3904
Total	**4.3789**	**23.0397**	**10.7348**	**1.4932**		**1.9403**	**1.9403**		**1.9403**	**1.9403**	**0.0000**	**1,095.1219**	**1,095.1219**	**0.3937**		**1,103.3904**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6309	8.8696	52.3240	0.8241	0.1791	0.3549	0.5340	0.0589	0.3549	0.4138		595.9157	595.9157	0.1964		600.0404
Worker	3.7155	4.8404	55.9220	0.2170	0.7360	0.0361	0.7721	0.2165	0.0361	0.2526		1,146.6491	1,146.6491	0.3440		1,153.8738
Total	**6.3463**	**13.7100**	**108.2461**	**1.0411**	**0.9151**	**0.3910**	**1.3061**	**0.2754**	**0.3910**	**0.6664**		**1,742.5648**	**1,742.5648**	**0.5404**		**1,753.9142**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	89.4318	104.8707	996.2220	7.4923	11.9332	1.2877	13.2208	3.4426	1.2877	4.7303		20,765.39 01	20,765.39 01	6.0658		20,892.77 11
Unmitigated	89.4318	104.8707	996.2220	7.4923	11.9332	1.2877	13.2208	3.4426	1.2877	4.7303		20,765.39 01	20,765.39 01	6.0658		20,892.77 11

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior High School	2,756.00	0.00	0.00	4,425,731	4,425,731
Total	2,756.00	0.00	0.00	4,425,731	4,425,731

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739
NaturalGas Unmitigated	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior High School	9452.05	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739
Total		**0.1019**	**0.9267**	**0.7784**	**5.5600e-003**		**0.0704**	**0.0704**		**0.0704**	**0.0704**		**1,112.0065**	**1,112.0065**	**0.0213**	**0.0204**	**1,118.7739**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior High School	9.45205	0.1019	0.9267	0.7784	5.5600e-003		0.0704	0.0704		0.0704	0.0704		1,112.0065	1,112.0065	0.0213	0.0204	1,118.7739
Total		**0.1019**	**0.9267**	**0.7784**	**5.5600e-003**		**0.0704**	**0.0704**		**0.0704**	**0.0704**		**1,112.0065**	**1,112.0065**	**0.0213**	**0.0204**	**1,118.7739**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5586	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611
Unmitigated	5.5586	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	4.2800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7600e-003	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611
Architectural Coating	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.5586**	**2.4000e-004**	**0.0666**	**2.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0438**	**0.0438**	**8.3000e-004**		**0.0611**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	4.2800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7600e-003	2.4000e-004	0.0666	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0438	0.0438	8.3000e-004		0.0611
Architectural Coating	1.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**5.5586**	**2.4000e-004**	**0.0666**	**2.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0438**	**0.0438**	**8.3000e-004**		**0.0611**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

2. CalEEMod Operational Outputs– Summer (pounds per day)

AAU Existing Site 1

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	44.53	1000sqft	1.02	44,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study, there are 7.41 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	103.5816	28.3139	22.1728	0.0261	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,624.5701	2,624.5701	0.6357	0.0000	2,637.9189
Total	**103.5816**	**28.3139**	**22.1728**	**0.0261**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,624.5701**	**2,624.5701**	**0.6357**	**0.0000**	**2,637.9189**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	103.5816	28.3139	22.1728	0.0261	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,624.5701	2,624.5701	0.6357	0.0000	2,637.9189
Total	**103.5816**	**28.3139**	**22.1728**	**0.0261**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,624.5701**	**2,624.5701**	**0.6357**	**0.0000**	**2,637.9189**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2376	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136
Energy	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539
Mobile	11.3523	14.0919	132.8126	1.0112	1.6139	0.1736	1.7875	0.4656	0.1736	0.6392		2,798.9231	2,798.9231	0.8064		2,815.8580
Total	**12.6257**	**14.4166**	**133.1002**	**1.0131**	**1.6139**	**0.1984**	**1.8122**	**0.4656**	**0.1984**	**0.6640**		**3,188.6152**	**3,188.6152**	**0.8141**	**7.1400e-003**	**3,207.9255**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2376	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136
Energy	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539
Mobile	11.3523	14.0919	132.8126	1.0112	1.6139	0.1736	1.7875	0.4656	0.1736	0.6392		2,798.9231	2,798.9231	0.8064		2,815.8580
Total	**12.6257**	**14.4166**	**133.1002**	**1.0131**	**1.6139**	**0.1984**	**1.8122**	**0.4656**	**0.1984**	**0.6640**		**3,188.6152**	**3,188.6152**	**0.8141**	**7.1400e-003**	**3,207.9255**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 66,795; Non-Residential Outdoor: 22,265 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.087 2	1,781.087 2	0.5372		1,792.369 3
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**		**1,781.087 2**	**1,781.087 2**	**0.5372**		**1,792.369 3**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.943 2	2,046.943 2	0.4499		2,056.391 3
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.943 2**	**2,046.943 2**	**0.4499**		**2,056.391 3**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0880	0.6637	1.0602	1.6100e-003	0.0462	9.9100e-003	0.0561	0.0132	9.1100e-003	0.0223		160.8656	160.8656	1.2600e-003		160.8920
Worker	0.0706	0.0819	0.9863	2.3900e-003	0.1792	1.5800e-003	0.1808	0.0475	1.4500e-003	0.0490		200.8746	200.8746	0.0100		201.0853
Total	**0.1586**	**0.7455**	**2.0465**	**4.0000e-003**	**0.2254**	**0.0115**	**0.2369**	**0.0607**	**0.0106**	**0.0713**		**361.7401**	**361.7401**	**0.0113**		**361.9772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176	0.0000	2,046.943 2	2,046.943 2	0.4499		2,056.391 3
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**	**0.0000**	**2,046.943 2**	**2,046.943 2**	**0.4499**		**2,056.391 3**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0880	0.6637	1.0602	1.6100e-003	0.0462	9.9100e-003	0.0561	0.0132	9.1100e-003	0.0223		160.8656	160.8656	1.2600e-003		160.8920
Worker	0.0706	0.0819	0.9863	2.3900e-003	0.1792	1.5800e-003	0.1808	0.0475	1.4500e-003	0.0490		200.8746	200.8746	0.0100		201.0853
Total	**0.1586**	**0.7455**	**2.0465**	**4.0000e-003**	**0.2254**	**0.0115**	**0.2369**	**0.0607**	**0.0106**	**0.0713**		**361.7401**	**361.7401**	**0.0113**		**361.9772**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438	0.0000	1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**	**0.0000**	**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	103.1983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**103.5667**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0149**	**0.0172**	**0.2076**	**5.0000e-004**	**0.0377**	**3.3000e-004**	**0.0381**	**0.0100**	**3.1000e-004**	**0.0103**		**42.2894**	**42.2894**	**2.1100e-003**		**42.3337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	103.1983					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**103.5667**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0149**	**0.0172**	**0.2076**	**5.0000e-004**	**0.0377**	**3.3000e-004**	**0.0381**	**0.0100**	**3.1000e-004**	**0.0103**		**42.2894**	**42.2894**	**2.1100e-003**		**42.3337**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.3523	14.0919	132.8126	1.0112	1.6139	0.1736	1.7875	0.4656	0.1736	0.6392		2,798.9231	2,798.9231	0.8064		2,815.8580
Unmitigated	11.3523	14.0919	132.8126	1.0112	1.6139	0.1736	1.7875	0.4656	0.1736	0.6392		2,798.9231	2,798.9231	0.8064		2,815.8580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	329.97	329.97	329.97	837,964	837,964
Total	329.97	329.97	329.97	837,964	837,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539
NaturalGas Unmitigated	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	3312.3	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539
Total		**0.0357**	**0.3247**	**0.2728**	**1.9500e-003**		**0.0247**	**0.0247**		**0.0247**	**0.0247**		**389.6824**	**389.6824**	**7.4700e-003**	**7.1400e-003**	**392.0539**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	3.3123	0.0357	0.3247	0.2728	1.9500e-003		0.0247	0.0247		0.0247	0.0247		389.6824	389.6824	7.4700e-003	7.1400e-003	392.0539
Total		**0.0357**	**0.3247**	**0.2728**	**1.9500e-003**		**0.0247**	**0.0247**		**0.0247**	**0.0247**		**389.6824**	**389.6824**	**7.4700e-003**	**7.1400e-003**	**392.0539**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2376	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136
Unmitigated	1.2376	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2827					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9529					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9500e-003	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136
Total	**1.2376**	**5.0000e-005**	**0.0148**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**9.7500e-003**	**9.7500e-003**	**1.8000e-004**		**0.0136**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2827					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9529					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9500e-003	5.0000e-005	0.0148	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		9.7500e-003	9.7500e-003	1.8000e-004		0.0136
Total	**1.2376**	**5.0000e-005**	**0.0148**	**1.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**9.7500e-003**	**9.7500e-003**	**1.8000e-004**		**0.0136**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 2

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.5 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	7.50
tblVehicleTrips	SU_TR	1.21	7.50
tblVehicleTrips	WD_TR	27.49	7.50

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	93.0759	14.0247	9.2239	0.0134	0.8471	0.9447	1.6518	0.4388	0.8691	1.2069	0.0000	1,332.0760	1,332.0760	0.3603	0.0000	1,339.6414
Total	**93.0759**	**14.0247**	**9.2239**	**0.0134**	**0.8471**	**0.9447**	**1.6518**	**0.4388**	**0.8691**	**1.2069**	**0.0000**	**1,332.0760**	**1,332.0760**	**0.3603**	**0.0000**	**1,339.6414**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	93.0759	14.0247	9.2239	0.0134	0.8471	0.9447	1.6518	0.4388	0.8691	1.2069	0.0000	1,332.0760	1,332.0760	0.3603	0.0000	1,339.6414
Total	**93.0759**	**14.0247**	**9.2239**	**0.0134**	**0.8471**	**0.9447**	**1.6518**	**0.4388**	**0.8691**	**1.2069**	**0.0000**	**1,332.0760**	**1,332.0760**	**0.3603**	**0.0000**	**1,339.6414**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5555	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003
Energy	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853
Mobile	2.4405	4.0661	26.2074	0.0312	0.7336	0.0622	0.7958	0.2116	0.0622	0.2738		1,332.4763	1,332.4763	0.2043		1,336.7673
Total	**3.0121**	**4.2120**	**26.3335**	**0.0321**	**0.7336**	**0.0733**	**0.8069**	**0.2116**	**0.0733**	**0.2849**		**1,507.5008**	**1,507.5008**	**0.2077**	**3.2100e-003**	**1,512.8576**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5555	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003
Energy	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853
Mobile	2.4405	4.0661	26.2074	0.0312	0.7336	0.0622	0.7958	0.2116	0.0622	0.2738		1,332.4763	1,332.4763	0.2043		1,336.7673
Total	**3.0121**	**4.2120**	**26.3335**	**0.0321**	**0.7336**	**0.0733**	**0.8069**	**0.2116**	**0.0733**	**0.2849**		**1,507.5008**	**1,507.5008**	**0.2077**	**3.2100e-003**	**1,512.8576**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0377	0.2844	0.4544	6.9000e-004	0.0198	4.2500e-003	0.0241	5.6500e-003	3.9000e-003	9.5500e-003		68.9424	68.9424	5.4000e-004		68.9537
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0675**	**0.3189**	**0.8697**	**1.7000e-003**	**0.0953**	**4.9100e-003**	**0.1002**	**0.0257**	**4.5100e-003**	**0.0302**		**153.5212**	**153.5212**	**4.7600e-003**		**153.6212**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0377	0.2844	0.4544	6.9000e-004	0.0198	4.2500e-003	0.0241	5.6500e-003	3.9000e-003	9.5500e-003		68.9424	68.9424	5.4000e-004		68.9537
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0675**	**0.3189**	**0.8697**	**1.7000e-003**	**0.0953**	**4.9100e-003**	**0.1002**	**0.0257**	**4.5100e-003**	**0.0302**		**153.5212**	**153.5212**	**4.7600e-003**		**153.6212**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.583 2	1,083.583 2	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.583 2**	**1,083.583 2**	**0.2969**		**1,089.817 5**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	92.7000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**93.0685**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	92.7000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**93.0685**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4405	4.0661	26.2074	0.0312	0.7336	0.0622	0.7958	0.2116	0.0622	0.2738		1,332.476 3	1,332.476 3	0.2043		1,336.767 3
Unmitigated	2.4405	4.0661	26.2074	0.0312	0.7336	0.0622	0.7958	0.2116	0.0622	0.2738		1,332.476 3	1,332.476 3	0.2043		1,336.767 3

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	150.00	150.00	150.00	380,931	380,931
Total	150.00	150.00	150.00	380,931	380,931

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853
NaturalGas Unmitigated	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	1487.67	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853
Total		**0.0160**	**0.1459**	**0.1225**	**8.8000e-004**		**0.0111**	**0.0111**		**0.0111**	**0.0111**		**175.0202**	**175.0202**	**3.3500e-003**	**3.2100e-003**	**176.0853**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	1.48767	0.0160	0.1459	0.1225	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.0202	175.0202	3.3500e-003	3.2100e-003	176.0853
Total		**0.0160**	**0.1459**	**0.1225**	**8.8000e-004**		**0.0111**	**0.0111**		**0.0111**	**0.0111**		**175.0202**	**175.0202**	**3.3500e-003**	**3.2100e-003**	**176.0853**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5555	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003
Unmitigated	0.5555	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003
Total	**0.5555**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**3.0000e-005**		**5.0000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	3.0000e-005	3.6200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	3.0000e-005		5.0000e-003
Total	**0.5555**	**3.0000e-005**	**3.6200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**3.0000e-005**		**5.0000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 3

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	52.00	Dwelling Unit	1.37	52,000.00	81

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	35,100.00	11,050.00
tblArchitecturalCoating	ConstArea_Residential_Interior	105,300.00	33,151.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	200.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	28.60	0.00
tblFireplaces	NumberNoFireplace	16.12	0.00
tblFireplaces	NumberWood	7.28	0.00
tblLandUse	Population	149.00	81.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblProjectCharacteristics	OperationalYear	2014	2005
tblSolidWaste	SolidWasteGenerationRate	23.92	7.53
tblTripsAndVMT	VendorTripNumber	6.00	2.00
tblTripsAndVMT	WorkerTripNumber	37.00	12.00
tblTripsAndVMT	WorkerTripNumber	7.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	3,388,009.33	1,066,571.40
tblWater	OutdoorWaterUseRate	2,135,918.93	672,403.71
tblWoodstoves	NumberCatalytic	0.26	0.00
tblWoodstoves	NumberNoncatalytic	0.26	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	102.8117	13.9472	9.2239	0.0134	0.8471	0.9436	1.6518	0.4388	0.8681	1.2069	0.0000	1,351.3846	1,351.3846	0.3622	0.0000	1,358.9906
Total	**102.8117**	**13.9472**	**9.2239**	**0.0134**	**0.8471**	**0.9436**	**1.6518**	**0.4388**	**0.8681**	**1.2069**	**0.0000**	**1,351.3846**	**1,351.3846**	**0.3622**	**0.0000**	**1,358.9906**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	102.8117	13.9472	9.2239	0.0134	0.8471	0.9436	1.6518	0.4388	0.8681	1.2069	0.0000	1,351.3846	1,351.3846	0.3622	0.0000	1,358.9906
Total	**102.8117**	**13.9472**	**9.2239**	**0.0134**	**0.8471**	**0.9436**	**1.6518**	**0.4388**	**0.8681**	**1.2069**	**0.0000**	**1,351.3846**	**1,351.3846**	**0.3622**	**0.0000**	**1,358.9906**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7738	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	7.7247	7.7247	0.0124	0.0000	7.9845
Energy	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.7846**	**0.1603**	**5.0149**	**8.2000e-004**	**0.0000**	**0.0285**	**0.0285**	**0.0000**	**0.0285**	**0.0285**	**0.0000**	**125.9839**	**125.9839**	**0.0146**	**2.1700e-003**	**126.9634**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7738	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	7.7247	7.7247	0.0124	0.0000	7.9845
Energy	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.7846**	**0.1603**	**5.0149**	**8.2000e-004**	**0.0000**	**0.0285**	**0.0285**	**0.0000**	**0.0285**	**0.0285**	**0.0000**	**125.9839**	**125.9839**	**0.0146**	**2.1700e-003**	**126.9634**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 33,151; Residential Outdoor: 11,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	2.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.1896	0.3029	4.6000e-004	0.0132	2.8300e-003	0.0160	3.7700e-003	2.6000e-003	6.3700e-003		45.9616	45.9616	3.6000e-004		45.9691
Worker	0.0446	0.0517	0.6229	1.5100e-003	0.1132	1.0000e-003	0.1142	0.0300	9.2000e-004	0.0309		126.8682	126.8682	6.3400e-003		127.0012
Total	**0.0698**	**0.2413**	**0.9259**	**1.9700e-003**	**0.1264**	**3.8300e-003**	**0.1302**	**0.0338**	**3.5200e-003**	**0.0373**		**172.8297**	**172.8297**	**6.7000e-003**		**172.9704**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0251	0.1896	0.3029	4.6000e-004	0.0132	2.8300e-003	0.0160	3.7700e-003	2.6000e-003	6.3700e-003		45.9616	45.9616	3.6000e-004		45.9691
Worker	0.0446	0.0517	0.6229	1.5100e-003	0.1132	1.0000e-003	0.1142	0.0300	9.2000e-004	0.0309		126.8682	126.8682	6.3400e-003		127.0012
Total	**0.0698**	**0.2413**	**0.9259**	**1.9700e-003**	**0.1264**	**3.8300e-003**	**0.1302**	**0.0338**	**3.5200e-003**	**0.0373**		**172.8297**	**172.8297**	**6.7000e-003**		**172.9704**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.4358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**102.8043**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	102.4358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**102.8043**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789
NaturalGas Unmitigated	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1005.2	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789
Total		**0.0108**	**0.0926**	**0.0394**	**5.9000e-004**		**7.4900e-003**	**7.4900e-003**		**7.4900e-003**	**7.4900e-003**		**118.2592**	**118.2592**	**2.2700e-003**	**2.1700e-003**	**118.9789**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.0052	0.0108	0.0926	0.0394	5.9000e-004		7.4900e-003	7.4900e-003		7.4900e-003	7.4900e-003		118.2592	118.2592	2.2700e-003	2.1700e-003	118.9789
Total		**0.0108**	**0.0926**	**0.0394**	**5.9000e-004**		**7.4900e-003**	**7.4900e-003**		**7.4900e-003**	**7.4900e-003**		**118.2592**	**118.2592**	**2.2700e-003**	**2.1700e-003**	**118.9789**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7738	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	7.7247	7.7247	0.0124	0.0000	7.9845
Unmitigated	1.7738	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	7.7247	7.7247	0.0124	0.0000	7.9845

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1128					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2153	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210		7.7247	7.7247	0.0124		7.9845
Total	**1.7738**	**0.0676**	**4.9755**	**2.3000e-004**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**7.7247**	**7.7247**	**0.0124**	**0.0000**	**7.9845**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4457					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1128					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2153	0.0676	4.9755	2.3000e-004		0.0210	0.0210		0.0210	0.0210		7.7247	7.7247	0.0124		7.9845
Total	**1.7738**	**0.0676**	**4.9755**	**2.3000e-004**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**7.7247**	**7.7247**	**0.0124**	**0.0000**	**7.9845**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 4

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	3.00	Dwelling Unit	0.08	3,000.00	20

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 4.6 **Precipitation Freq (Days)** 64

Climate Zone 5 **Operational Year** 2005

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1. 1/29/16

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,025.00	3,426.00
tblArchitecturalCoating	ConstArea_Residential_Interior	6,075.00	10,279.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Residential_Exterior	2025	2700
tblAreaCoating	Area_Residential_Interior	6075	8100
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	1.65	0.00
tblFireplaces	NumberNoFireplace	0.93	0.00
tblFireplaces	NumberWood	0.42	0.00
tblLandUse	Population	9.00	20.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblSolidWaste	SolidWasteGenerationRate	1.38	2.34
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblTripsAndVMT	WorkerTripNumber	0.00	1.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	195,462.08	330,982.45
tblWater	OutdoorWaterUseRate	123,226.09	208,662.85
tblWoodstoves	NumberCatalytic	0.02	0.00
tblWoodstoves	NumberNoncatalytic	0.02	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	32.1335	13.8179	9.2239	0.0134	0.8471	0.9416	1.6518	0.4388	0.8662	1.2069	0.0000	1,299.3341	1,299.3341	0.3578	0.0000	1,306.8476
Total	**32.1335**	**13.8179**	**9.2239**	**0.0134**	**0.8471**	**0.9416**	**1.6518**	**0.4388**	**0.8662**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3578**	**0.0000**	**1,306.8476**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	32.1335	13.8179	9.2239	0.0134	0.8471	0.9416	1.6518	0.4388	0.8662	1.2069	0.0000	1,299.3341	1,299.3341	0.3578	0.0000	1,306.8476
Total	**32.1335**	**13.8179**	**9.2239**	**0.0134**	**0.8471**	**0.9416**	**1.6518**	**0.4388**	**0.8662**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3578**	**0.0000**	**1,306.8476**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1109	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	0.4457	0.4457	7.1000e-004	0.0000	0.4606
Energy	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1115**	**9.2400e-003**	**0.2893**	**4.0000e-005**	**0.0000**	**1.6400e-003**	**1.6400e-003**	**0.0000**	**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.2683**	**7.2683**	**8.4000e-004**	**1.3000e-004**	**7.3248**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1109	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	0.4457	0.4457	7.1000e-004	0.0000	0.4606
Energy	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1115**	**9.2400e-003**	**0.2893**	**4.0000e-005**	**0.0000**	**1.6400e-003**	**1.6400e-003**	**0.0000**	**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.2683**	**7.2683**	**8.4000e-004**	**1.3000e-004**	**7.3248**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 10,279; Residential Outdoor: 3,426; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.610 6	1,193.610 6	0.2386		1,198.621 7
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.610 6**	**1,193.610 6**	**0.2386**		**1,198.621 7**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0274**	**0.1120**	**0.3591**	**7.3000e-004**	**0.0443**	**1.7500e-003**	**0.0461**	**0.0119**	**1.6100e-003**	**0.0135**		**65.2702**	**65.2702**	**2.2900e-003**		**65.3183**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0274**	**0.1120**	**0.3591**	**7.3000e-004**	**0.0443**	**1.7500e-003**	**0.0461**	**0.0119**	**1.6100e-003**	**0.0135**		**65.2702**	**65.2702**	**2.2900e-003**		**65.3183**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7613					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**32.1298**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7200e-003	4.3100e-003	0.0519	1.3000e-004	9.4300e-003	8.0000e-005	9.5100e-003	2.5000e-003	8.0000e-005	2.5800e-003		10.5724	10.5724	5.3000e-004		10.5834
Total	**3.7200e-003**	**4.3100e-003**	**0.0519**	**1.3000e-004**	**9.4300e-003**	**8.0000e-005**	**9.5100e-003**	**2.5000e-003**	**8.0000e-005**	**2.5800e-003**		**10.5724**	**10.5724**	**5.3000e-004**		**10.5834**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.7613					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**32.1298**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7200e-003	4.3100e-003	0.0519	1.3000e-004	9.4300e-003	8.0000e-005	9.5100e-003	2.5000e-003	8.0000e-005	2.5800e-003		10.5724	10.5724	5.3000e-004		10.5834
Total	**3.7200e-003**	**4.3100e-003**	**0.0519**	**1.3000e-004**	**9.4300e-003**	**8.0000e-005**	**9.5100e-003**	**2.5000e-003**	**8.0000e-005**	**2.5800e-003**		**10.5724**	**10.5724**	**5.3000e-004**		**10.5834**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642
NaturalGas Unmitigated	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	57.9925	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642
Total		**6.3000e-004**	**5.3400e-003**	**2.2700e-003**	**3.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**		**6.8226**	**6.8226**	**1.3000e-004**	**1.3000e-004**	**6.8642**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.0579925	6.3000e-004	5.3400e-003	2.2700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8226	6.8226	1.3000e-004	1.3000e-004	6.8642
Total		**6.3000e-004**	**5.3400e-003**	**2.2700e-003**	**3.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**		**6.8226**	**6.8226**	**1.3000e-004**	**1.3000e-004**	**6.8642**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1109	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	0.4457	0.4457	7.1000e-004	0.0000	0.4606
Unmitigated	0.1109	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	0.4457	0.4457	7.1000e-004	0.0000	0.4606

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0124	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.4457	0.4457	7.1000e-004		0.4606
Total	**0.1109**	**3.9000e-003**	**0.2871**	**1.0000e-005**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**0.4457**	**0.4457**	**7.1000e-004**	**0.0000**	**0.4606**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0343					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0642					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0124	3.9000e-003	0.2871	1.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		0.4457	0.4457	7.1000e-004		0.4606
Total	**0.1109**	**3.9000e-003**	**0.2871**	**1.0000e-005**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**0.4457**	**0.4457**	**7.1000e-004**	**0.0000**	**0.4606**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 5

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	22.00	Dwelling Unit	0.58	22,000.00	56

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1. 1/29/2016

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fire places or wood stoves.

Area Coating -

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	14,850.00	8,030.00
tblArchitecturalCoating	ConstArea_Residential_Interior	44,550.00	24,091.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Residential_Exterior	14850	12150
tblAreaCoating	Area_Residential_Interior	44550	36450
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	12.10	0.00
tblFireplaces	NumberNoFireplace	6.82	0.00
tblFireplaces	NumberWood	3.08	0.00
tblLandUse	Population	63.00	56.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	10.12	5.47
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	16.00	9.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	1,433,388.56	775,332.90
tblWater	OutdoorWaterUseRate	903,658.01	488,796.83
tblWoodstoves	NumberCatalytic	0.11	0.00
tblWoodstoves	NumberNoncatalytic	0.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	74.8163	13.8394	9.2239	0.0134	0.8471	0.9420	1.6518	0.4388	0.8666	1.2069	0.0000	1,299.3341	1,299.3341	0.3604	0.0000	1,306.9030
Total	**74.8163**	**13.8394**	**9.2239**	**0.0134**	**0.8471**	**0.9420**	**1.6518**	**0.4388**	**0.8666**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3604**	**0.0000**	**1,306.9030**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	74.8163	13.8394	9.2239	0.0134	0.8471	0.9420	1.6518	0.4388	0.8666	1.2069	0.0000	1,299.3341	1,299.3341	0.3604	0.0000	1,306.9030
Total	**74.8163**	**13.8394**	**9.2239**	**0.0134**	**0.8471**	**0.9420**	**1.6518**	**0.4388**	**0.8666**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3604**	**0.0000**	**1,306.9030**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8368	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003	0.0000	3.2682	3.2682	0.0232	0.0000	3.7552
Energy	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.8414**	**0.0668**	**4.1091**	**1.6900e-003**	**0.0000**	**7.7300e-003**	**7.7300e-003**	**0.0000**	**7.7300e-003**	**7.7300e-003**	**0.0000**	**53.3009**	**53.3009**	**0.0242**	**9.2000e-004**	**54.0925**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8368	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003	0.0000	3.2682	3.2682	0.0232	0.0000	3.7552
Energy	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.8414**	**0.0668**	**4.1091**	**1.6900e-003**	**0.0000**	**7.7300e-003**	**7.7300e-003**	**0.0000**	**7.7300e-003**	**7.7300e-003**	**0.0000**	**53.3009**	**53.3009**	**0.0242**	**9.2000e-004**	**54.0925**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 24,091; Residential Outdoor: 8,030; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0460**	**0.1336**	**0.6187**	**1.3600e-003**	**0.0915**	**2.1700e-003**	**0.0936**	**0.0244**	**1.9900e-003**	**0.0264**		**118.1319**	**118.1319**	**4.9300e-003**		**118.2355**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0460**	**0.1336**	**0.6187**	**1.3600e-003**	**0.0915**	**2.1700e-003**	**0.0936**	**0.0244**	**1.9900e-003**	**0.0264**		**118.1319**	**118.1319**	**4.9300e-003**		**118.2355**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.4404					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**74.8089**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	74.4404					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**74.8089**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372
NaturalGas Unmitigated	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	425.278	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372
Total		**4.5900e-003**	**0.0392**	**0.0167**	**2.5000e-004**		**3.1700e-003**	**3.1700e-003**		**3.1700e-003**	**3.1700e-003**		**50.0327**	**50.0327**	**9.6000e-004**	**9.2000e-004**	**50.3372**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.425278	4.5900e-003	0.0392	0.0167	2.5000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003		50.0327	50.0327	9.6000e-004	9.2000e-004	50.3372
Total		**4.5900e-003**	**0.0392**	**0.0167**	**2.5000e-004**		**3.1700e-003**	**3.1700e-003**		**3.1700e-003**	**3.1700e-003**		**50.0327**	**50.0327**	**9.6000e-004**	**9.2000e-004**	**50.3372**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8368	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003	0.0000	3.2682	3.2682	0.0232	0.0000	3.7552
Unmitigated	0.8368	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003	0.0000	3.2682	3.2682	0.0232	0.0000	3.7552

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2117	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003		3.2682	3.2682	0.0232		3.7552
Total	**0.8368**	**0.0276**	**4.0925**	**1.4400e-003**		**4.5600e-003**	**4.5600e-003**		**4.5600e-003**	**4.5600e-003**	**0.0000**	**3.2682**	**3.2682**	**0.0232**	**0.0000**	**3.7552**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1543					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4708					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2117	0.0276	4.0925	1.4400e-003		4.5600e-003	4.5600e-003		4.5600e-003	4.5600e-003		3.2682	3.2682	0.0232		3.7552
Total	**0.8368**	**0.0276**	**4.0925**	**1.4400e-003**		**4.5600e-003**	**4.5600e-003**		**4.5600e-003**	**4.5600e-003**	**0.0000**	**3.2682**	**3.2682**	**0.0232**	**0.0000**	**3.7552**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 6

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	27.91	1000sqft	0.64	27,912.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.52 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 4/19/16 adjustment to trip rates due to updated information.

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblLandUse	LandUseSquareFeet	27,910.00	27,912.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	6.40
tblVehicleTrips	SU_TR	1.21	6.40
tblVehicleTrips	WD_TR	27.49	6.40

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	129.7480	14.2316	9.5924	0.0140	0.8471	0.9479	1.6518	0.4388	0.8720	1.2069	0.0000	1,420.3270	1,420.3270	0.3627	0.0000	1,427.9443
Total	**129.7480**	**14.2316**	**9.5924**	**0.0140**	**0.8471**	**0.9479**	**1.6518**	**0.4388**	**0.8720**	**1.2069**	**0.0000**	**1,420.3270**	**1,420.3270**	**0.3627**	**0.0000**	**1,427.9443**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	129.7480	14.2316	9.5924	0.0140	0.8471	0.9479	1.6518	0.4388	0.8720	1.2069	0.0000	1,420.3270	1,420.3270	0.3627	0.0000	1,427.9443
Total	**129.7480**	**14.2316**	**9.5924**	**0.0140**	**0.8471**	**0.9479**	**1.6518**	**0.4388**	**0.8720**	**1.2069**	**0.0000**	**1,420.3270**	**1,420.3270**	**0.3627**	**0.0000**	**1,427.9443**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7750	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003
Energy	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446
Mobile	1.7041	3.1980	17.8109	0.0302	0.8736	0.0699	0.9434	0.2520	0.0699	0.3218		1,564.2675	1,564.2675	0.1507		1,567.4330
Total	**2.5015**	**3.4016**	**17.9855**	**0.0314**	**0.8736**	**0.0854**	**0.9589**	**0.2520**	**0.0854**	**0.3373**		**1,808.5317**	**1,808.5317**	**0.1555**	**4.4800e-003**	**1,813.1843**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7750	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003
Energy	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446
Mobile	1.7041	3.1980	17.8109	0.0302	0.8736	0.0699	0.9434	0.2520	0.0699	0.3218		1,564.2675	1,564.2675	0.1507		1,567.4330
Total	**2.5015**	**3.4016**	**17.9855**	**0.0314**	**0.8736**	**0.0854**	**0.9589**	**0.2520**	**0.0854**	**0.3373**		**1,808.5317**	**1,808.5317**	**0.1555**	**4.4800e-003**	**1,813.1843**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 41,868; Non-Residential Outdoor: 13,956 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	5.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0629	0.4741	0.7573	1.1500e-003	0.0330	7.0800e-003	0.0401	9.4100e-003	6.5000e-003	0.0159		114.9040	114.9040	9.0000e-004		114.9228
Worker	0.0446	0.0517	0.6229	1.5100e-003	0.1132	1.0000e-003	0.1142	0.0300	9.2000e-004	0.0309		126.8682	126.8682	6.3400e-003		127.0012
Total	**0.1075**	**0.5258**	**1.3802**	**2.6600e-003**	**0.1462**	**8.0800e-003**	**0.1543**	**0.0394**	**7.4200e-003**	**0.0469**		**241.7721**	**241.7721**	**7.2400e-003**		**241.9241**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0629	0.4741	0.7573	1.1500e-003	0.0330	7.0800e-003	0.0401	9.4100e-003	6.5000e-003	0.0159		114.9040	114.9040	9.0000e-004		114.9228
Worker	0.0446	0.0517	0.6229	1.5100e-003	0.1132	1.0000e-003	0.1142	0.0300	9.2000e-004	0.0309		126.8682	126.8682	6.3400e-003		127.0012
Total	**0.1075**	**0.5258**	**1.3802**	**2.6600e-003**	**0.1462**	**8.0800e-003**	**0.1543**	**0.0394**	**7.4200e-003**	**0.0469**		**241.7721**	**241.7721**	**7.2400e-003**		**241.9241**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	129.3721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**129.7406**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	129.3721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**129.7406**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7041	3.1980	17.8109	0.0302	0.8736	0.0699	0.9434	0.2520	0.0699	0.3218		1,564.2675	1,564.2675	0.1507		1,567.4330
Unmitigated	1.7041	3.1980	17.8109	0.0302	0.8736	0.0699	0.9434	0.2520	0.0699	0.3218		1,564.2675	1,564.2675	0.1507		1,567.4330

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	178.62	178.62	178.62	453,622	453,622
Total	178.62	178.62	178.62	453,622	453,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446
NaturalGas Unmitigated	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	2076.19	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446
Total		**0.0224**	**0.2036**	**0.1710**	**1.2200e-003**		**0.0155**	**0.0155**		**0.0155**	**0.0155**		**244.2581**	**244.2581**	**4.6800e-003**	**4.4800e-003**	**245.7446**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	2.07619	0.0224	0.2036	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155		244.2581	244.2581	4.6800e-003	4.4800e-003	245.7446
Total		**0.0224**	**0.2036**	**0.1710**	**1.2200e-003**		**0.0155**	**0.0155**		**0.0155**	**0.0155**		**244.2581**	**244.2581**	**4.6800e-003**	**4.4800e-003**	**245.7446**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7750	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003
Unmitigated	0.7750	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5973					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003
Total	**0.7750**	**4.0000e-005**	**3.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.1100e-003**	**6.1100e-003**	**3.0000e-005**		**6.7100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5973					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	4.0000e-005	3.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1100e-003	6.1100e-003	3.0000e-005		6.7100e-003
Total	**0.7750**	**4.0000e-005**	**3.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.1100e-003**	**6.1100e-003**	**3.0000e-005**		**6.7100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 8

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	107.91	1000sqft	2.48	107,908.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.414 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblLandUse	LandUseSquareFeet	107,910.00	107,908.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	250.4787	30.8582	22.1728	0.0347	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,241.633 7	3,241.633 7	0.7523	0.0000	3,257.432 3
2017	250.4395	2.2201	2.2922	4.1000e-003	0.0849	0.1741	0.2589	0.0225	0.1740	0.1965	0.0000	372.9645	372.9645	0.0341	0.0000	373.6808
Total	**500.9182**	**33.0783**	**24.4650**	**0.0388**	**6.7315**	**1.9197**	**8.5735**	**3.4150**	**1.8078**	**5.1235**	**0.0000**	**3,614.598 2**	**3,614.598 2**	**0.7864**	**0.0000**	**3,631.113 0**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	250.4787	30.8582	22.1728	0.0347	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,241.633 7	3,241.633 7	0.7523	0.0000	3,257.432 3
2017	250.4395	2.2201	2.2922	4.1000e-003	0.0849	0.1741	0.2589	0.0225	0.1740	0.1965	0.0000	372.9645	372.9645	0.0341	0.0000	373.6808
Total	**500.9182**	**33.0783**	**24.4650**	**0.0388**	**6.7315**	**1.9197**	**8.5735**	**3.4150**	**1.8078**	**5.1235**	**0.0000**	**3,614.598 2**	**3,614.598 2**	**0.7864**	**0.0000**	**3,631.113 0**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9991	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330
Energy	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506
Mobile	27.5250	34.1674	322.0198	2.4517	3.9130	0.4210	4.3340	1.1289	0.4210	1.5499		6,786.3202	6,786.3202	1.9553		6,827.3806
Total	**30.6107**	**34.9544**	**322.7168**	**2.4564**	**3.9130**	**0.4809**	**4.3939**	**1.1289**	**0.4809**	**1.6098**		**7,730.6475**	**7,730.6475**	**1.9738**	**0.0173**	**7,777.4642**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9991	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330
Energy	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506
Mobile	27.5250	34.1674	322.0198	2.4517	3.9130	0.4210	4.3340	1.1289	0.4210	1.5499		6,786.3202	6,786.3202	1.9553		6,827.3806
Total	**30.6107**	**34.9544**	**322.7168**	**2.4564**	**3.9130**	**0.4809**	**4.3939**	**1.1289**	**0.4809**	**1.6098**		**7,730.6475**	**7,730.6475**	**1.9738**	**0.0173**	**7,777.4642**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 161,862; Non-Residential Outdoor: 53,954 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	18.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907		2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**		**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907	0.0000	2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**	**0.0000**	**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337		2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**		**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337	0.0000	2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**	**0.0000**	**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569		2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**		**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2263	1.7066	2.7262	4.1400e-003	0.1188	0.0255	0.1443	0.0339	0.0234	0.0573		413.6543	413.6543	3.2300e-003		413.7222
Worker	0.1673	0.1939	2.3360	5.6600e-003	0.4244	3.7400e-003	0.4281	0.1126	3.4400e-003	0.1160		475.7556	475.7556	0.0238		476.2546
Total	**0.3936**	**1.9005**	**5.0622**	**9.8000e-003**	**0.5432**	**0.0292**	**0.5724**	**0.1464**	**0.0269**	**0.1733**		**889.4099**	**889.4099**	**0.0270**		**889.9768**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569	0.0000	2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**	**0.0000**	**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2263	1.7066	2.7262	4.1400e-003	0.1188	0.0255	0.1443	0.0339	0.0234	0.0573		413.6543	413.6543	3.2300e-003		413.7222
Worker	0.1673	0.1939	2.3360	5.6600e-003	0.4244	3.7400e-003	0.4281	0.1126	3.4400e-003	0.1160		475.7556	475.7556	0.0238		476.2546
Total	**0.3936**	**1.9005**	**5.0622**	**9.8000e-003**	**0.5432**	**0.0292**	**0.5724**	**0.1464**	**0.0269**	**0.1733**		**889.4099**	**889.4099**	**0.0270**		**889.9768**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363		1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**		**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363	0.0000	1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**	**0.0000**	**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	250.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**250.4453**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0335**	**0.0388**	**0.4672**	**1.1300e-003**	**0.0849**	**7.5000e-004**	**0.0856**	**0.0225**	**6.9000e-004**	**0.0232**		**95.1511**	**95.1511**	**4.7500e-003**		**95.2509**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	250.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**250.4453**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0335**	**0.0388**	**0.4672**	**1.1300e-003**	**0.0849**	**7.5000e-004**	**0.0856**	**0.0225**	**6.9000e-004**	**0.0232**		**95.1511**	**95.1511**	**4.7500e-003**		**95.2509**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	250.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**250.4091**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0304	0.0351	0.4241	1.1300e-003	0.0849	7.2000e-004	0.0856	0.0225	6.7000e-004	0.0232		91.5164	91.5164	4.3900e-003		91.6087
Total	**0.0304**	**0.0351**	**0.4241**	**1.1300e-003**	**0.0849**	**7.2000e-004**	**0.0856**	**0.0225**	**6.7000e-004**	**0.0232**		**91.5164**	**91.5164**	**4.3900e-003**		**91.6087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	250.0768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**250.4091**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0304	0.0351	0.4241	1.1300e-003	0.0849	7.2000e-004	0.0856	0.0225	6.7000e-004	0.0232		91.5164	91.5164	4.3900e-003		91.6087
Total	**0.0304**	**0.0351**	**0.4241**	**1.1300e-003**	**0.0849**	**7.2000e-004**	**0.0856**	**0.0225**	**6.7000e-004**	**0.0232**		**91.5164**	**91.5164**	**4.3900e-003**		**91.6087**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	27.5250	34.1674	322.0198	2.4517	3.9130	0.4210	4.3340	1.1289	0.4210	1.5499		6,786.3202	6,786.3202	1.9553		6,827.3806
Unmitigated	27.5250	34.1674	322.0198	2.4517	3.9130	0.4210	4.3340	1.1289	0.4210	1.5499		6,786.3202	6,786.3202	1.9553		6,827.3806

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	800.04	800.04	800.04	2,031,743	2,031,743
Total	800.04	800.04	800.04	2,031,743	2,031,743

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506
NaturalGas Unmitigated	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	8026.58	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506
Total		**0.0866**	**0.7869**	**0.6610**	**4.7200e-003**		**0.0598**	**0.0598**		**0.0598**	**0.0598**		**944.3037**	**944.3037**	**0.0181**	**0.0173**	**950.0506**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	8.02658	0.0866	0.7869	0.6610	4.7200e-003		0.0598	0.0598		0.0598	0.0598		944.3037	944.3037	0.0181	0.0173	950.0506
Total		**0.0866**	**0.7869**	**0.6610**	**4.7200e-003**		**0.0598**	**0.0598**		**0.0598**	**0.0598**		**944.3037**	**944.3037**	**0.0181**	**0.0173**	**950.0506**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9991	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330
Unmitigated	2.9991	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6851					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7300e-003	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330
Total	**2.9991**	**1.3000e-004**	**0.0360**	**1.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0236**	**0.0236**	**4.5000e-004**		**0.0330**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	2.3092					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7300e-003	1.3000e-004	0.0360	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0236	0.0236	4.5000e-004		0.0330
Architectural Coating	0.6851					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.9991**	**1.3000e-004**	**0.0360**	**1.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0236**	**0.0236**	**4.5000e-004**		**0.0330**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 9

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	27.00	Dwelling Unit	0.71	27,000.00	47

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	14,850.00	8,890.00
tblArchitecturalCoating	ConstArea_Residential_Interior	44,550.00	26,671.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	12.10	0.00
tblFireplaces	NumberNoFireplace	6.82	0.00
tblFireplaces	NumberWood	3.08	0.00
tblLandUse	Population	77.00	47.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	10.12	6.06
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	16.00	9.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	1,433,388.56	858,078.52
tblWater	OutdoorWaterUseRate	903,658.01	540,962.54
tblWoodstoves	NumberCatalytic	0.11	0.00
tblWoodstoves	NumberNoncatalytic	0.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	82.7885	13.8394	9.2239	0.0134	0.8471	0.9420	1.6518	0.4388	0.8666	1.2069	0.0000	1,299.3341	1,299.3341	0.3604	0.0000	1,306.9030
Total	**82.7885**	**13.8394**	**9.2239**	**0.0134**	**0.8471**	**0.9420**	**1.6518**	**0.4388**	**0.8666**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3604**	**0.0000**	**1,306.9030**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	82.7885	13.8394	9.2239	0.0134	0.8471	0.9420	1.6518	0.4388	0.8666	1.2069	0.0000	1,299.3341	1,299.3341	0.3604	0.0000	1,306.9030
Total	**82.7885**	**13.8394**	**9.2239**	**0.0134**	**0.8471**	**0.9420**	**1.6518**	**0.4388**	**0.8666**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3604**	**0.0000**	**1,306.9030**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0262	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	4.0109	4.0109	0.0285	0.0000	4.6087
Energy	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0319**	**0.0820**	**5.0430**	**2.0700e-003**	**0.0000**	**9.4800e-003**	**9.4800e-003**	**0.0000**	**9.4800e-003**	**9.4800e-003**	**0.0000**	**65.4147**	**65.4147**	**0.0297**	**1.1300e-003**	**66.3862**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0262	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	4.0109	4.0109	0.0285	0.0000	4.6087
Energy	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0319**	**0.0820**	**5.0430**	**2.0700e-003**	**0.0000**	**9.4800e-003**	**9.4800e-003**	**0.0000**	**9.4800e-003**	**9.4800e-003**	**0.0000**	**65.4147**	**65.4147**	**0.0297**	**1.1300e-003**	**66.3862**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 26,671; Residential Outdoor: 8,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0460**	**0.1336**	**0.6187**	**1.3600e-003**	**0.0915**	**2.1700e-003**	**0.0936**	**0.0244**	**1.9900e-003**	**0.0264**		**118.1319**	**118.1319**	**4.9300e-003**		**118.2355**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0335	0.0388	0.4672	1.1300e-003	0.0849	7.5000e-004	0.0856	0.0225	6.9000e-004	0.0232		95.1511	95.1511	4.7500e-003		95.2509
Total	**0.0460**	**0.1336**	**0.6187**	**1.3600e-003**	**0.0915**	**2.1700e-003**	**0.0936**	**0.0244**	**1.9900e-003**	**0.0264**		**118.1319**	**118.1319**	**4.9300e-003**		**118.2355**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.583 2	1,083.583 2	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.583 2**	**1,083.583 2**	**0.2969**		**1,089.817 5**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	82.4126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**82.7811**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	82.4126					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**82.7811**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775
NaturalGas Unmitigated	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	521.932	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775
Total		**5.6300e-003**	**0.0481**	**0.0205**	**3.1000e-004**		**3.8900e-003**	**3.8900e-003**		**3.8900e-003**	**3.8900e-003**		**61.4038**	**61.4038**	**1.1800e-003**	**1.1300e-003**	**61.7775**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.521932	5.6300e-003	0.0481	0.0205	3.1000e-004		3.8900e-003	3.8900e-003		3.8900e-003	3.8900e-003		61.4038	61.4038	1.1800e-003	1.1300e-003	61.7775
Total		**5.6300e-003**	**0.0481**	**0.0205**	**3.1000e-004**		**3.8900e-003**	**3.8900e-003**		**3.8900e-003**	**3.8900e-003**		**61.4038**	**61.4038**	**1.1800e-003**	**1.1300e-003**	**61.7775**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0262	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	4.0109	4.0109	0.0285	0.0000	4.6087
Unmitigated	1.0262	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	4.0109	4.0109	0.0285	0.0000	4.6087

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5778					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2598	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003		4.0109	4.0109	0.0285		4.6087
Total	**1.0262**	**0.0339**	**5.0226**	**1.7600e-003**		**5.5900e-003**	**5.5900e-003**		**5.5900e-003**	**5.5900e-003**	**0.0000**	**4.0109**	**4.0109**	**0.0285**	**0.0000**	**4.6087**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5778					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2598	0.0339	5.0226	1.7600e-003		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003		4.0109	4.0109	0.0285		4.6087
Total	**1.0262**	**0.0339**	**5.0226**	**1.7600e-003**		**5.5900e-003**	**5.5900e-003**		**5.5900e-003**	**5.5900e-003**	**0.0000**	**4.0109**	**4.0109**	**0.0285**	**0.0000**	**4.6087**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 11

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	15.00	Dwelling Unit	0.39	15,000.00	37

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	10,125.00	7,058.00
tblArchitecturalCoating	ConstArea_Residential_Interior	30,375.00	21,173.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	8.25	0.00
tblFireplaces	NumberNoFireplace	4.65	0.00
tblFireplaces	NumberWood	2.10	0.00
tblLandUse	Population	43.00	37.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	6.90	4.81
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	11.00	8.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	977,310.38	681,511.11
tblWater	OutdoorWaterUseRate	616,130.46	429,648.31
tblWoodstoves	NumberCatalytic	0.08	0.00
tblWoodstoves	NumberNoncatalytic	0.08	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	65.8012	13.8351	9.2239	0.0134	0.8471	0.9419	1.6518	0.4388	0.8665	1.2069	0.0000	1,299.3341	1,299.3341	0.3599	0.0000	1,306.8919
Total	**65.8012**	**13.8351**	**9.2239**	**0.0134**	**0.8471**	**0.9419**	**1.6518**	**0.4388**	**0.8665**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3599**	**0.0000**	**1,306.8919**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	65.8012	13.8351	9.2239	0.0134	0.8471	0.9419	1.6518	0.4388	0.8665	1.2069	0.0000	1,299.3341	1,299.3341	0.3599	0.0000	1,306.8919
Total	**65.8012**	**13.8351**	**9.2239**	**0.0134**	**0.8471**	**0.9419**	**1.6518**	**0.4388**	**0.8665**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3599**	**0.0000**	**1,306.8919**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5939	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	2.2283	2.2283	0.0158	0.0000	2.5604
Energy	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.5971**	**0.0456**	**2.8017**	**1.1500e-003**	**0.0000**	**5.2700e-003**	**5.2700e-003**	**0.0000**	**5.2700e-003**	**5.2700e-003**	**0.0000**	**36.3415**	**36.3415**	**0.0165**	**6.3000e-004**	**36.8812**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5939	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	2.2283	2.2283	0.0158	0.0000	2.5604
Energy	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.5971**	**0.0456**	**2.8017**	**1.1500e-003**	**0.0000**	**5.2700e-003**	**5.2700e-003**	**0.0000**	**5.2700e-003**	**5.2700e-003**	**0.0000**	**36.3415**	**36.3415**	**0.0165**	**6.3000e-004**	**36.8812**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 21,173; Residential Outdoor: 7,058; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0423**	**0.1293**	**0.5668**	**1.2400e-003**	**0.0820**	**2.0800e-003**	**0.0841**	**0.0219**	**1.9100e-003**	**0.0238**		**107.5596**	**107.5596**	**4.4000e-003**		**107.6521**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0126	0.0948	0.1515	2.3000e-004	6.6000e-003	1.4200e-003	8.0200e-003	1.8800e-003	1.3000e-003	3.1800e-003		22.9808	22.9808	1.8000e-004		22.9846
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0423**	**0.1293**	**0.5668**	**1.2400e-003**	**0.0820**	**2.0800e-003**	**0.0841**	**0.0219**	**1.9100e-003**	**0.0238**		**107.5596**	**107.5596**	**4.4000e-003**		**107.6521**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.4253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**65.7938**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.4253					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**65.7938**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208
NaturalGas Unmitigated	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	289.962	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208
Total		**3.1300e-003**	**0.0267**	**0.0114**	**1.7000e-004**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**		**34.1132**	**34.1132**	**6.5000e-004**	**6.3000e-004**	**34.3208**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.289962	3.1300e-003	0.0267	0.0114	1.7000e-004		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003		34.1132	34.1132	6.5000e-004	6.3000e-004	34.3208
Total		**3.1300e-003**	**0.0267**	**0.0114**	**1.7000e-004**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**		**34.1132**	**34.1132**	**6.5000e-004**	**6.3000e-004**	**34.3208**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5939	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	2.2283	2.2283	0.0158	0.0000	2.5604
Unmitigated	0.5939	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	2.2283	2.2283	0.0158	0.0000	2.5604

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1444	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003		2.2283	2.2283	0.0158		2.5604
Total	**0.5939**	**0.0188**	**2.7903**	**9.8000e-004**		**3.1100e-003**	**3.1100e-003**		**3.1100e-003**	**3.1100e-003**	**0.0000**	**2.2283**	**2.2283**	**0.0158**	**0.0000**	**2.5604**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1444	0.0188	2.7903	9.8000e-004		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003		2.2283	2.2283	0.0158		2.5604
Total	**0.5939**	**0.0188**	**2.7903**	**9.8000e-004**		**3.1100e-003**	**3.1100e-003**		**3.1100e-003**	**3.1100e-003**	**0.0000**	**2.2283**	**2.2283**	**0.0158**	**0.0000**	**2.5604**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 12

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	42.00	Dwelling Unit	1.11	42,000.00	122

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fire places or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	28,350.00	16,556.00
tblArchitecturalCoating	ConstArea_Residential_Interior	85,050.00	49,669.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	200.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	23.10	0.00
tblFireplaces	NumberNoFireplace	13.02	0.00
tblFireplaces	NumberWood	5.88	0.00
tblLandUse	Population	120.00	122.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	19.32	11.28
tblTripsAndVMT	VendorTripNumber	4.00	3.00
tblTripsAndVMT	WorkerTripNumber	30.00	18.00
tblTripsAndVMT	WorkerTripNumber	6.00	4.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	2,736,469.08	1,598,228.25
tblWater	OutdoorWaterUseRate	1,725,165.29	1,007,578.68
tblWoodstoves	NumberCatalytic	0.21	0.00
tblWoodstoves	NumberNoncatalytic	0.21	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	153.8598	14.0678	9.6009	0.0143	0.8471	0.9455	1.6518	0.4388	0.8699	1.2069	0.0000	1,437.7995	1,437.7995	0.3655	0.0000	1,445.4758
Total	**153.8598**	**14.0678**	**9.6009**	**0.0143**	**0.8471**	**0.9455**	**1.6518**	**0.4388**	**0.8699**	**1.2069**	**0.0000**	**1,437.7995**	**1,437.7995**	**0.3655**	**0.0000**	**1,445.4758**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	153.8598	14.0678	9.6009	0.0143	0.8471	0.9455	1.6518	0.4388	0.8699	1.2069	0.0000	1,437.7995	1,437.7995	0.3655	0.0000	1,445.4758
Total	**153.8598**	**14.0678**	**9.6009**	**0.0143**	**0.8471**	**0.9455**	**1.6518**	**0.4388**	**0.8699**	**1.2069**	**0.0000**	**1,437.7995**	**1,437.7995**	**0.3655**	**0.0000**	**1,445.4758**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6630	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	6.2392	6.2392	0.0443	0.0000	7.1691
Energy	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.6718**	**0.1276**	**7.8447**	**3.2300e-003**	**0.0000**	**0.0148**	**0.0148**	**0.0000**	**0.0148**	**0.0148**	**0.0000**	**101.7562**	**101.7562**	**0.0461**	**1.7500e-003**	**103.2674**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6630	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	6.2392	6.2392	0.0443	0.0000	7.1691
Energy	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.6718**	**0.1276**	**7.8447**	**3.2300e-003**	**0.0000**	**0.0148**	**0.0148**	**0.0000**	**0.0148**	**0.0148**	**0.0000**	**101.7562**	**101.7562**	**0.0461**	**1.7500e-003**	**103.2674**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 49,669; Residential Outdoor: 16,556; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	18.00	3.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0377	0.2844	0.4544	6.9000e-004	0.0198	4.2500e-003	0.0241	5.6500e-003	3.9000e-003	9.5500e-003		68.9424	68.9424	5.4000e-004		68.9537
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.1046**	**0.3620**	**1.3888**	**2.9500e-003**	**0.1896**	**5.7500e-003**	**0.1953**	**0.0507**	**5.2800e-003**	**0.0560**		**259.2446**	**259.2446**	**0.0101**		**259.4555**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0377	0.2844	0.4544	6.9000e-004	0.0198	4.2500e-003	0.0241	5.6500e-003	3.9000e-003	9.5500e-003		68.9424	68.9424	5.4000e-004		68.9537
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.1046**	**0.3620**	**1.3888**	**2.9500e-003**	**0.1896**	**5.7500e-003**	**0.1953**	**0.0507**	**5.2800e-003**	**0.0560**		**259.2446**	**259.2446**	**0.0101**		**259.4555**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	153.4764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**153.8449**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0149**	**0.0172**	**0.2076**	**5.0000e-004**	**0.0377**	**3.3000e-004**	**0.0381**	**0.0100**	**3.1000e-004**	**0.0103**		**42.2894**	**42.2894**	**2.1100e-003**		**42.3337**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	153.4764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**153.8449**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0149	0.0172	0.2076	5.0000e-004	0.0377	3.3000e-004	0.0381	0.0100	3.1000e-004	0.0103		42.2894	42.2894	2.1100e-003		42.3337
Total	**0.0149**	**0.0172**	**0.2076**	**5.0000e-004**	**0.0377**	**3.3000e-004**	**0.0381**	**0.0100**	**3.1000e-004**	**0.0103**		**42.2894**	**42.2894**	**2.1100e-003**		**42.3337**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983
NaturalGas Unmitigated	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	811.895	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983
Total		**8.7600e-003**	**0.0748**	**0.0318**	**4.8000e-004**		**6.0500e-003**	**6.0500e-003**		**6.0500e-003**	**6.0500e-003**		**95.5170**	**95.5170**	**1.8300e-003**	**1.7500e-003**	**96.0983**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	0.811895	8.7600e-003	0.0748	0.0318	4.8000e-004		6.0500e-003	6.0500e-003		6.0500e-003	6.0500e-003		95.5170	95.5170	1.8300e-003	1.7500e-003	96.0983
Total		**8.7600e-003**	**0.0748**	**0.0318**	**4.8000e-004**		**6.0500e-003**	**6.0500e-003**		**6.0500e-003**	**6.0500e-003**		**95.5170**	**95.5170**	**1.8300e-003**	**1.7500e-003**	**96.0983**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6630	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	6.2392	6.2392	0.0443	0.0000	7.1691
Unmitigated	1.6630	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	6.2392	6.2392	0.0443	0.0000	7.1691

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4042	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		6.2392	6.2392	0.0443		7.1691
Total	**1.6630**	**0.0527**	**7.8129**	**2.7500e-003**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**	**0.0000**	**6.2392**	**6.2392**	**0.0443**	**0.0000**	**7.1691**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8988					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4042	0.0527	7.8129	2.7500e-003		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003		6.2392	6.2392	0.0443		7.1691
Total	**1.6630**	**0.0527**	**7.8129**	**2.7500e-003**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**	**0.0000**	**6.2392**	**6.2392**	**0.0443**	**0.0000**	**7.1691**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 13

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	87.00	Dwelling Unit	2.29	87,000.00	184

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	60,075.00	23,822.00
tblArchitecturalCoating	ConstArea_Residential_Interior	180,225.00	71,466.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	48.95	0.00
tblFireplaces	NumberNoFireplace	27.59	0.00
tblFireplaces	NumberWood	12.46	0.00
tblLandUse	Population	249.00	184.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblSolidWaste	SolidWasteGenerationRate	40.94	16.23
tblTripsAndVMT	VendorTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	64.00	25.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	5,798,708.28	2,299,285.56
tblWater	OutdoorWaterUseRate	3,655,707.39	1,449,549.59
tblWoodstoves	NumberCatalytic	0.45	0.00
tblWoodstoves	NumberNoncatalytic	0.45	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	221.2170	14.1928	10.1158	0.0154	0.8471	0.9475	1.6518	0.4388	0.8717	1.2069	0.0000	1,534.7867	1,534.7867	0.3694	0.0000	1,542.5444
Total	**221.2170**	**14.1928**	**10.1158**	**0.0154**	**0.8471**	**0.9475**	**1.6518**	**0.4388**	**0.8717**	**1.2069**	**0.0000**	**1,534.7867**	**1,534.7867**	**0.3694**	**0.0000**	**1,542.5444**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	221.2170	14.1928	10.1158	0.0154	0.8471	0.9475	1.6518	0.4388	0.8717	1.2069	0.0000	1,534.7867	1,534.7867	0.3694	0.0000	1,542.5444
Total	**221.2170**	**14.1928**	**10.1158**	**0.0154**	**0.8471**	**0.9475**	**1.6518**	**0.4388**	**0.8717**	**1.2069**	**0.0000**	**1,534.7867**	**1,534.7867**	**0.3694**	**0.0000**	**1,542.5444**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1797	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	12.9241	12.9241	0.0310	0.0000	13.5746
Energy	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.1978**	**0.2477**	**10.7661**	**1.5300e-003**	**0.0000**	**0.0450**	**0.0450**	**0.0000**	**0.0450**	**0.0450**	**0.0000**	**210.7807**	**210.7807**	**0.0348**	**3.6300e-003**	**212.6354**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1797	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	12.9241	12.9241	0.0310	0.0000	13.5746
Energy	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.1978**	**0.2477**	**10.7661**	**1.5300e-003**	**0.0000**	**0.0450**	**0.0450**	**0.0000**	**0.0450**	**0.0450**	**0.0000**	**210.7807**	**210.7807**	**0.0348**	**3.6300e-003**	**212.6354**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 71,466; Residential Outdoor: 23,822; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	25.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.610 6	1,193.610 6	0.2386		1,198.621 7
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.610 6**	**1,193.610 6**	**0.2386**		**1,198.621 7**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0929	0.1077	1.2978	3.1400e-003	0.2358	2.0800e-003	0.2378	0.0625	1.9100e-003	0.0644		264.3087	264.3087	0.0132		264.5859
Total	**0.1432**	**0.4870**	**1.9036**	**4.0600e-003**	**0.2622**	**7.7400e-003**	**0.2699**	**0.0701**	**7.1100e-003**	**0.0772**		**356.2318**	**356.2318**	**0.0139**		**356.5242**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0929	0.1077	1.2978	3.1400e-003	0.2358	2.0800e-003	0.2378	0.0625	1.9100e-003	0.0644		264.3087	264.3087	0.0132		264.5859
Total	**0.1432**	**0.4870**	**1.9036**	**4.0600e-003**	**0.2622**	**7.7400e-003**	**0.2699**	**0.0701**	**7.1100e-003**	**0.0772**		**356.2318**	**356.2318**	**0.0139**		**356.5242**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	220.8299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**221.1984**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	220.8299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**221.1984**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608
NaturalGas Unmitigated	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1681.78	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608
Total		**0.0181**	**0.1550**	**0.0660**	**9.9000e-004**		**0.0125**	**0.0125**		**0.0125**	**0.0125**		**197.8567**	**197.8567**	**3.7900e-003**	**3.6300e-003**	**199.0608**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.68178	0.0181	0.1550	0.0660	9.9000e-004		0.0125	0.0125		0.0125	0.0125		197.8567	197.8567	3.7900e-003	3.6300e-003	199.0608
Total		**0.0181**	**0.1550**	**0.0660**	**9.9000e-004**		**0.0125**	**0.0125**		**0.0125**	**0.0125**		**197.8567**	**197.8567**	**3.7900e-003**	**3.6300e-003**	**199.0608**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1797	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	12.9241	12.9241	0.0310	0.0000	13.5746
Unmitigated	3.1797	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324	0.0000	12.9241	12.9241	0.0310	0.0000	13.5746

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8618					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5550	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324		12.9241	12.9241	0.0310		13.5746
Total	**3.1797**	**0.0927**	**10.7002**	**5.4000e-004**		**0.0324**	**0.0324**		**0.0324**	**0.0324**	**0.0000**	**12.9241**	**12.9241**	**0.0310**	**0.0000**	**13.5746**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7629					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8618					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5550	0.0927	10.7002	5.4000e-004		0.0324	0.0324		0.0324	0.0324		12.9241	12.9241	0.0310		13.5746
Total	**3.1797**	**0.0927**	**10.7002**	**5.4000e-004**		**0.0324**	**0.0324**		**0.0324**	**0.0324**	**0.0000**	**12.9241**	**12.9241**	**0.0310**	**0.0000**	**13.5746**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 14

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	114.00	Dwelling Unit	3.00	114,000.00	222

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 4.6 **Precipitation Freq (Days)** 64

Climate Zone 5 **Operational Year** 2000

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assumed no fire places or wood stoves

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	76,950.00	35,093.00
tblArchitecturalCoating	ConstArea_Residential_Interior	230,850.00	105,280.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	77985
tblAreaCoating	Area_Residential_Exterior	76950	0
tblAreaCoating	Area_Residential_Interior	230850	0
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	3.00	2.00
tblEnergyUse	T24E	312.05	234.04
tblFireplaces	NumberGas	62.70	0.00
tblFireplaces	NumberNoFireplace	35.34	0.00
tblFireplaces	NumberWood	15.96	0.00
tblLandUse	Population	326.00	222.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblTripsAndVMT	VendorTripNumber	12.00	6.00
tblTripsAndVMT	WorkerTripNumber	82.00	37.00
tblTripsAndVMT	WorkerTripNumber	16.00	7.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.57	0.00
tblWoodstoves	NumberNoncatalytic	0.57	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	163.0517	28.3139	22.1728	0.0280	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,624.5701	2,624.5701	0.6357	0.0000	2,637.9189
Total	**163.0517**	**28.3139**	**22.1728**	**0.0280**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,624.5701**	**2,624.5701**	**0.6357**	**0.0000**	**2,637.9189**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	163.0517	28.3139	22.1728	0.0280	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,624.5701	2,624.5701	0.6357	0.0000	2,637.9189
Total	**163.0517**	**28.3139**	**22.1728**	**0.0280**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,624.5701**	**2,624.5701**	**0.6357**	**0.0000**	**2,637.9189**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4144	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425	0.0000	16.9350	16.9350	0.0406	0.0000	17.7874
Energy	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.4443**	**0.3763**	**14.1293**	**2.3300e-003**	**0.0000**	**0.0631**	**0.0631**	**0.0000**	**0.0631**	**0.0631**	**0.0000**	**342.2592**	**342.2592**	**0.0468**	**5.9600e-003**	**345.0915**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.4144	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425	0.0000	16.9350	16.9350	0.0406	0.0000	17.7874
Energy	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**3.4443**	**0.3763**	**14.1293**	**2.3300e-003**	**0.0000**	**0.0631**	**0.0631**	**0.0000**	**0.0631**	**0.0631**	**0.0000**	**342.2592**	**342.2592**	**0.0468**	**5.9600e-003**	**345.0915**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 105,280; Residential Outdoor: 35,093; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	37.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**		**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.943 2	2,046.943 2	0.4499		2,056.391 3
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.943 2**	**2,046.943 2**	**0.4499**		**2,056.391 3**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0754	0.5689	0.9088	1.3800e-003	0.0396	8.5000e-003	0.0481	0.0113	7.8100e-003	0.0191		137.8848	137.8848	1.0800e-003		137.9074
Worker	0.1376	0.1594	1.9207	4.6500e-003	0.3489	3.0700e-003	0.3520	0.0925	2.8300e-003	0.0954		391.1768	391.1768	0.0195		391.5871
Total	**0.2130**	**0.7283**	**2.8295**	**6.0300e-003**	**0.3885**	**0.0116**	**0.4001**	**0.1038**	**0.0106**	**0.1145**		**529.0616**	**529.0616**	**0.0206**		**529.4945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176	0.0000	2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**	**0.0000**	**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0754	0.5689	0.9088	1.3800e-003	0.0396	8.5000e-003	0.0481	0.0113	7.8100e-003	0.0191		137.8848	137.8848	1.0800e-003		137.9074
Worker	0.1376	0.1594	1.9207	4.6500e-003	0.3489	3.0700e-003	0.3520	0.0925	2.8300e-003	0.0954		391.1768	391.1768	0.0195		391.5871
Total	**0.2130**	**0.7283**	**2.8295**	**6.0300e-003**	**0.3885**	**0.0116**	**0.4001**	**0.1038**	**0.0106**	**0.1145**		**529.0616**	**529.0616**	**0.0206**		**529.4945**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.436 6	1,368.436 6	0.4053		1,376.947 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.436 6**	**1,368.436 6**	**0.4053**		**1,376.947 3**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438	0.0000	1,368.436 6	1,368.436 6	0.4053		1,376.947 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**	**0.0000**	**1,368.436 6**	**1,368.436 6**	**0.4053**		**1,376.947 3**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	162.6572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**163.0257**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0260	0.0302	0.3634	8.8000e-004	0.0660	5.8000e-004	0.0666	0.0175	5.4000e-004	0.0180		74.0064	74.0064	3.7000e-003		74.0841
Total	**0.0260**	**0.0302**	**0.3634**	**8.8000e-004**	**0.0660**	**5.8000e-004**	**0.0666**	**0.0175**	**5.4000e-004**	**0.0180**		**74.0064**	**74.0064**	**3.7000e-003**		**74.0841**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	162.6572					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**163.0257**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0260	0.0302	0.3634	8.8000e-004	0.0660	5.8000e-004	0.0666	0.0175	5.4000e-004	0.0180		74.0064	74.0064	3.7000e-003		74.0841
Total	**0.0260**	**0.0302**	**0.3634**	**8.8000e-004**	**0.0660**	**5.8000e-004**	**0.0666**	**0.0175**	**5.4000e-004**	**0.0180**		**74.0064**	**74.0064**	**3.7000e-003**		**74.0841**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041
NaturalGas Unmitigated	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2765.26	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041
Total		**0.0298**	**0.2548**	**0.1084**	**1.6300e-003**		**0.0206**	**0.0206**		**0.0206**	**0.0206**		**325.3242**	**325.3242**	**6.2400e-003**	**5.9600e-003**	**327.3041**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	2.76526	0.0298	0.2548	0.1084	1.6300e-003		0.0206	0.0206		0.0206	0.0206		325.3242	325.3242	6.2400e-003	5.9600e-003	327.3041
Total		**0.0298**	**0.2548**	**0.1084**	**1.6300e-003**		**0.0206**	**0.0206**		**0.0206**	**0.0206**		**325.3242**	**325.3242**	**6.2400e-003**	**5.9600e-003**	**327.3041**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4144	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425	0.0000	16.9350	16.9350	0.0406	0.0000	17.7874
Unmitigated	3.4144	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425	0.0000	16.9350	16.9350	0.0406	0.0000	17.7874

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7273	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425		16.9350	16.9350	0.0406		17.7874
Total	**3.4145**	**0.1215**	**14.0209**	**7.0000e-004**		**0.0425**	**0.0425**		**0.0425**	**0.0425**	**0.0000**	**16.9350**	**16.9350**	**0.0406**	**0.0000**	**17.7874**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2476					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7273	0.1215	14.0209	7.0000e-004		0.0425	0.0425		0.0425	0.0425		16.9350	16.9350	0.0406		17.7874
Total	**3.4145**	**0.1215**	**14.0209**	**7.0000e-004**		**0.0425**	**0.0425**		**0.0425**	**0.0425**	**0.0000**	**16.9350**	**16.9350**	**0.0406**	**0.0000**	**17.7874**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 16

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	1.88	1000sqft	0.04	1,875.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 5.333 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	5.33
tblVehicleTrips	SU_TR	1.21	5.33
tblVehicleTrips	WD_TR	27.49	5.33

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	9.0614	13.7102	9.2239	0.0134	0.8471	0.9399	1.6518	0.4388	0.8647	1.2069	0.0000	1,299.3341	1,299.3341	0.3560	0.0000	1,306.8105
Total	**9.0614**	**13.7102**	**9.2239**	**0.0134**	**0.8471**	**0.9399**	**1.6518**	**0.4388**	**0.8647**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3560**	**0.0000**	**1,306.8105**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	9.0614	13.7102	9.2239	0.0134	0.8471	0.9399	1.6518	0.4388	0.8647	1.2069	0.0000	1,299.3341	1,299.3341	0.3560	0.0000	1,306.8105
Total	**9.0614**	**13.7102**	**9.2239**	**0.0134**	**0.8471**	**0.9399**	**1.6518**	**0.4388**	**0.8647**	**1.2069**	**0.0000**	**1,299.3341**	**1,299.3341**	**0.3560**	**0.0000**	**1,306.8105**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0521	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004
Energy	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080
Mobile	0.1627	0.2711	1.7471	2.0800e-003	0.0489	4.1500e-003	0.0531	0.0141	4.1500e-003	0.0183		88.8262	88.8262	0.0136		89.1123
Total	**0.2163**	**0.2847**	**1.7589**	**2.1600e-003**	**0.0489**	**5.1900e-003**	**0.0541**	**0.0141**	**5.1900e-003**	**0.0193**		**105.2348**	**105.2348**	**0.0139**	**3.0000e-004**	**105.6207**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0521	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004
Energy	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080
Mobile	0.1627	0.2711	1.7471	2.0800e-003	0.0489	4.1500e-003	0.0531	0.0141	4.1500e-003	0.0183		88.8262	88.8262	0.0136		89.1123
Total	**0.2163**	**0.2847**	**1.7589**	**2.1600e-003**	**0.0489**	**5.1900e-003**	**0.0541**	**0.0141**	**5.1900e-003**	**0.0193**		**105.2348**	**105.2348**	**0.0139**	**3.0000e-004**	**105.6207**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,813; Non-Residential Outdoor: 938 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7200e-003	4.3100e-003	0.0519	1.3000e-004	9.4300e-003	8.0000e-005	9.5100e-003	2.5000e-003	8.0000e-005	2.5800e-003		10.5724	10.5724	5.3000e-004		10.5834
Total	**3.7200e-003**	**4.3100e-003**	**0.0519**	**1.3000e-004**	**9.4300e-003**	**8.0000e-005**	**9.5100e-003**	**2.5000e-003**	**8.0000e-005**	**2.5800e-003**		**10.5724**	**10.5724**	**5.3000e-004**		**10.5834**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	3.7200e-003	4.3100e-003	0.0519	1.3000e-004	9.4300e-003	8.0000e-005	9.5100e-003	2.5000e-003	8.0000e-005	2.5800e-003		10.5724	10.5724	5.3000e-004		10.5834
Total	**3.7200e-003**	**4.3100e-003**	**0.0519**	**1.3000e-004**	**9.4300e-003**	**8.0000e-005**	**9.5100e-003**	**2.5000e-003**	**8.0000e-005**	**2.5800e-003**		**10.5724**	**10.5724**	**5.3000e-004**		**10.5834**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.583 2	1,083.583 2	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.583 2**	**1,083.583 2**	**0.2969**		**1,089.817 5**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.6929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**9.0614**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.6929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**9.0614**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1627	0.2711	1.7471	2.0800e-003	0.0489	4.1500e-003	0.0531	0.0141	4.1500e-003	0.0183		88.8262	88.8262	0.0136		89.1123
Unmitigated	0.1627	0.2711	1.7471	2.0800e-003	0.0489	4.1500e-003	0.0531	0.0141	4.1500e-003	0.0183		88.8262	88.8262	0.0136		89.1123

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	10.00	10.00	10.00	25,394	25,394
Total	10.00	10.00	10.00	25,394	25,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080
NaturalGas Unmitigated	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	139.469	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080
Total		**1.5000e-003**	**0.0137**	**0.0115**	**8.0000e-005**		**1.0400e-003**	**1.0400e-003**		**1.0400e-003**	**1.0400e-003**		**16.4081**	**16.4081**	**3.1000e-004**	**3.0000e-004**	**16.5080**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	0.139469	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003		16.4081	16.4081	3.1000e-004	3.0000e-004	16.5080
Total		**1.5000e-003**	**0.0137**	**0.0115**	**8.0000e-005**		**1.0400e-003**	**1.0400e-003**		**1.0400e-003**	**1.0400e-003**		**16.4081**	**16.4081**	**3.1000e-004**	**3.0000e-004**	**16.5080**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0521	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004
Unmitigated	0.0521	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004
Total	**0.0521**	**0.0000**	**3.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.1000e-004**	**4.1000e-004**	**0.0000**		**4.7000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	3.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.7000e-004
Total	**0.0521**	**0.0000**	**3.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.1000e-004**	**4.1000e-004**	**0.0000**		**4.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 17

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	81.00	Dwelling Unit	2.13	81,000.00	155

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Woodstoves - Assumed no fire places or wood stoves0

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	54,675.00	24,444.00
tblArchitecturalCoating	ConstArea_Residential_Interior	164,025.00	73,331.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	54320
tblAreaCoating	Area_Residential_Exterior	54675	0
tblAreaCoating	Area_Residential_Interior	164025	0
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	44.55	0.00
tblFireplaces	NumberNoFireplace	25.11	0.00
tblFireplaces	NumberWood	11.34	0.00
tblLandUse	Population	232.00	155.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblTripsAndVMT	VendorTripNumber	9.00	4.00
tblTripsAndVMT	WorkerTripNumber	58.00	26.00
tblTripsAndVMT	WorkerTripNumber	12.00	5.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.41	0.00
tblWoodstoves	NumberNoncatalytic	0.41	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	226.9806	14.1971	10.1677	0.0155	0.8471	0.9476	1.6518	0.4388	0.8718	1.2069	0.0000	1,545.3590	1,545.3590	0.3699	0.0000	1,553.1278
Total	**226.9806**	**14.1971**	**10.1677**	**0.0155**	**0.8471**	**0.9476**	**1.6518**	**0.4388**	**0.8718**	**1.2069**	**0.0000**	**1,545.3590**	**1,545.3590**	**0.3699**	**0.0000**	**1,553.1278**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	226.9806	14.1971	10.1677	0.0155	0.8471	0.9476	1.6518	0.4388	0.8718	1.2069	0.0000	1,545.3590	1,545.3590	0.3699	0.0000	1,553.1278
Total	**226.9806**	**14.1971**	**10.1677**	**0.0155**	**0.8471**	**0.9476**	**1.6518**	**0.4388**	**0.8718**	**1.2069**	**0.0000**	**1,545.3590**	**1,545.3590**	**0.3699**	**0.0000**	**1,553.1278**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4226	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302	0.0000	12.0327	12.0327	0.0288	0.0000	12.6384
Energy	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**2.4395**	**0.2306**	**10.0236**	**1.4200e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**196.2441**	**196.2441**	**0.0324**	**3.3800e-003**	**197.9709**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4226	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302	0.0000	12.0327	12.0327	0.0288	0.0000	12.6384
Energy	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**2.4395**	**0.2306**	**10.0236**	**1.4200e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**196.2441**	**196.2441**	**0.0324**	**3.3800e-003**	**197.9709**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 73,331; Residential Outdoor: 24,444; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	26.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0967	0.1120	1.3497	3.2700e-003	0.2452	2.1600e-003	0.2474	0.0650	1.9900e-003	0.0670		274.8810	274.8810	0.0137		275.1693
Total	**0.1469**	**0.4913**	**1.9555**	**4.1900e-003**	**0.2716**	**7.8200e-003**	**0.2794**	**0.0726**	**7.1900e-003**	**0.0798**		**366.8042**	**366.8042**	**0.0145**		**367.1076**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.554 9	1,178.554 9	0.3555		1,186.020 2
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.554 9**	**1,178.554 9**	**0.3555**		**1,186.020 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0967	0.1120	1.3497	3.2700e-003	0.2452	2.1600e-003	0.2474	0.0650	1.9900e-003	0.0670		274.8810	274.8810	0.0137		275.1693
Total	**0.1469**	**0.4913**	**1.9555**	**4.1900e-003**	**0.2716**	**7.8200e-003**	**0.2794**	**0.0726**	**7.1900e-003**	**0.0798**		**366.8042**	**366.8042**	**0.0145**		**367.1076**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	226.5936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**226.9620**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	226.5936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**226.9620**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324
NaturalGas Unmitigated	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1565.8	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324
Total		**0.0169**	**0.1443**	**0.0614**	**9.2000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**184.2114**	**184.2114**	**3.5300e-003**	**3.3800e-003**	**185.3324**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.5658	0.0169	0.1443	0.0614	9.2000e-004		0.0117	0.0117		0.0117	0.0117		184.2114	184.2114	3.5300e-003	3.3800e-003	185.3324
Total		**0.0169**	**0.1443**	**0.0614**	**9.2000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**		**184.2114**	**184.2114**	**3.5300e-003**	**3.3800e-003**	**185.3324**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4226	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302	0.0000	12.0327	12.0327	0.0288	0.0000	12.6384
Unmitigated	2.4226	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302	0.0000	12.0327	12.0327	0.0288	0.0000	12.6384

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1725					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5167	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302		12.0327	12.0327	0.0288		12.6384
Total	**2.4226**	**0.0863**	**9.9622**	**5.0000e-004**		**0.0302**	**0.0302**		**0.0302**	**0.0302**	**0.0000**	**12.0327**	**12.0327**	**0.0288**	**0.0000**	**12.6384**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1725					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.5167	0.0863	9.9622	5.0000e-004		0.0302	0.0302		0.0302	0.0302		12.0327	12.0327	0.0288		12.6384
Total	**2.4226**	**0.0863**	**9.9622**	**5.0000e-004**		**0.0302**	**0.0302**		**0.0302**	**0.0302**	**0.0000**	**12.0327**	**12.0327**	**0.0288**	**0.0000**	**12.6384**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 20

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	65.00	Dwelling Unit	1.71	65,000.00	129

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Woodstoves - Assumed no fireplaces or woodstoves

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	43,875.00	45,748.00
tblArchitecturalCoating	ConstArea_Residential_Interior	131,625.00	137,244.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	101663
tblAreaCoating	Area_Residential_Exterior	43875	0
tblAreaCoating	Area_Residential_Interior	131625	0
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	35.75	0.00
tblFireplaces	NumberNoFireplace	20.15	0.00
tblFireplaces	NumberWood	9.10	0.00
tblLandUse	Population	186.00	129.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	47.00	49.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.33	0.00
tblWoodstoves	NumberNoncatalytic	0.33	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	212.4476	28.3139	22.1728	0.0297	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,725.8537	2,725.8537	0.6357	0.0000	2,739.2026
Total	**212.4476**	**28.3139**	**22.1728**	**0.0297**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,725.8537**	**2,725.8537**	**0.6357**	**0.0000**	**2,739.2026**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	212.4476	28.3139	22.1728	0.0297	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,725.8537	2,725.8537	0.6357	0.0000	2,739.2026
Total	**212.4476**	**28.3139**	**22.1728**	**0.0297**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,725.8537**	**2,725.8537**	**0.6357**	**0.0000**	**2,739.2026**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9828	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263	0.0000	9.6559	9.6559	0.0155	0.0000	9.9806
Energy	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.9964**	**0.2004**	**6.2686**	**1.0200e-003**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**157.4798**	**157.4798**	**0.0183**	**2.7100e-003**	**158.7042**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9828	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263	0.0000	9.6559	9.6559	0.0155	0.0000	9.9806
Energy	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.9964**	**0.2004**	**6.2686**	**1.0200e-003**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**0.0356**	**0.0356**	**0.0000**	**157.4798**	**157.4798**	**0.0183**	**2.7100e-003**	**158.7042**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 137,244; Residential Outdoor: 45,748; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	49.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**		**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0880	0.6637	1.0602	1.6100e-003	0.0462	9.9100e-003	0.0561	0.0132	9.1100e-003	0.0223		160.8656	160.8656	1.2600e-003		160.8920
Worker	0.1822	0.2111	2.5436	6.1600e-003	0.4621	4.0700e-003	0.4662	0.1226	3.7500e-003	0.1263		518.0449	518.0449	0.0259		518.5883
Total	**0.2702**	**0.8748**	**3.6039**	**7.7700e-003**	**0.5083**	**0.0140**	**0.5223**	**0.1357**	**0.0129**	**0.1486**		**678.9105**	**678.9105**	**0.0271**		**679.4803**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176	0.0000	2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**	**0.0000**	**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0880	0.6637	1.0602	1.6100e-003	0.0462	9.9100e-003	0.0561	0.0132	9.1100e-003	0.0223		160.8656	160.8656	1.2600e-003		160.8920
Worker	0.1822	0.2111	2.5436	6.1600e-003	0.4621	4.0700e-003	0.4662	0.1226	3.7500e-003	0.1263		518.0449	518.0449	0.0259		518.5883
Total	**0.2702**	**0.8748**	**3.6039**	**7.7700e-003**	**0.5083**	**0.0140**	**0.5223**	**0.1357**	**0.0129**	**0.1486**		**678.9105**	**678.9105**	**0.0271**		**679.4803**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438	0.0000	1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**	**0.0000**	**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	212.0420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**212.4104**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	212.0420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**212.4104**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236
NaturalGas Unmitigated	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1256.5	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236
Total		**0.0136**	**0.1158**	**0.0493**	**7.4000e-004**		**9.3600e-003**	**9.3600e-003**		**9.3600e-003**	**9.3600e-003**		**147.8239**	**147.8239**	**2.8300e-003**	**2.7100e-003**	**148.7236**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	1.2565	0.0136	0.1158	0.0493	7.4000e-004		9.3600e-003	9.3600e-003		9.3600e-003	9.3600e-003		147.8239	147.8239	2.8300e-003	2.7100e-003	148.7236
Total		**0.0136**	**0.1158**	**0.0493**	**7.4000e-004**		**9.3600e-003**	**9.3600e-003**		**9.3600e-003**	**9.3600e-003**		**147.8239**	**147.8239**	**2.8300e-003**	**2.7100e-003**	**148.7236**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9828	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263	0.0000	9.6559	9.6559	0.0155	0.0000	9.9806
Unmitigated	1.9828	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263	0.0000	9.6559	9.6559	0.0155	0.0000	9.9806

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2691	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263		9.6559	9.6559	0.0155		9.9806
Total	**1.9828**	**0.0846**	**6.2193**	**2.8000e-004**		**0.0263**	**0.0263**		**0.0263**	**0.0263**	**0.0000**	**9.6559**	**9.6559**	**0.0155**	**0.0000**	**9.9806**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3228					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3910					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2691	0.0846	6.2193	2.8000e-004		0.0263	0.0263		0.0263	0.0263		9.6559	9.6559	0.0155		9.9806
Total	**1.9828**	**0.0846**	**6.2193**	**2.8000e-004**		**0.0263**	**0.0263**		**0.0263**	**0.0263**	**0.0000**	**9.6559**	**9.6559**	**0.0155**	**0.0000**	**9.9806**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 23

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	37.73	1000sqft	0.87	37,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.506 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 4/19/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	6.36
tblVehicleTrips	SU_TR	1.21	6.36
tblVehicleTrips	WD_TR	27.49	6.36

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	175.2582	14.3436	9.9515	0.0147	0.8471	0.9496	1.6518	0.4388	0.8737	1.2069	0.0000	1,485.5972	1,485.5972	0.3650	0.0000	1,493.2626
Total	**175.2582**	**14.3436**	**9.9515**	**0.0147**	**0.8471**	**0.9496**	**1.6518**	**0.4388**	**0.8737**	**1.2069**	**0.0000**	**1,485.5972**	**1,485.5972**	**0.3650**	**0.0000**	**1,493.2626**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	175.2582	14.3436	9.9515	0.0147	0.8471	0.9496	1.6518	0.4388	0.8737	1.2069	0.0000	1,485.5972	1,485.5972	0.3650	0.0000	1,493.2626
Total	**175.2582**	**14.3436**	**9.9515**	**0.0147**	**0.8471**	**0.9496**	**1.6518**	**0.4388**	**0.8737**	**1.2069**	**0.0000**	**1,485.5972**	**1,485.5972**	**0.3650**	**0.0000**	**1,493.2626**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0479	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003
Energy	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849
Mobile	3.9043	6.5048	41.9253	0.0499	1.1736	0.0996	1.2731	0.3385	0.0996	0.4381		2,131.6316	2,131.6316	0.3269		2,138.4962
Total	**4.9825**	**6.7800**	**42.1633**	**0.0516**	**1.1736**	**0.1205**	**1.2941**	**0.3385**	**0.1205**	**0.4590**		**2,461.8153**	**2,461.8153**	**0.3333**	**6.0500e-003**	**2,470.6906**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0479	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003
Energy	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849
Mobile	3.9043	6.5048	41.9253	0.0499	1.1736	0.0996	1.2731	0.3385	0.0996	0.4381		2,131.6316	2,131.6316	0.3269		2,138.4962
Total	**4.9825**	**6.7800**	**42.1633**	**0.0516**	**1.1736**	**0.1205**	**1.2941**	**0.3385**	**0.1205**	**0.4590**		**2,461.8153**	**2,461.8153**	**0.3333**	**6.0500e-003**	**2,470.6906**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 56,595; Non-Residential Outdoor: 18,865 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0754	0.5689	0.9088	1.3800e-003	0.0396	8.5000e-003	0.0481	0.0113	7.8100e-003	0.0191		137.8848	137.8848	1.0800e-003		137.9074
Worker	0.0595	0.0689	0.8306	2.0100e-003	0.1509	1.3300e-003	0.1522	0.0400	1.2200e-003	0.0412		169.1575	169.1575	8.4500e-003		169.3350
Total	**0.1349**	**0.6378**	**1.7393**	**3.3900e-003**	**0.1905**	**9.8300e-003**	**0.2003**	**0.0513**	**9.0300e-003**	**0.0603**		**307.0423**	**307.0423**	**9.5300e-003**		**307.2424**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0754	0.5689	0.9088	1.3800e-003	0.0396	8.5000e-003	0.0481	0.0113	7.8100e-003	0.0191		137.8848	137.8848	1.0800e-003		137.9074
Worker	0.0595	0.0689	0.8306	2.0100e-003	0.1509	1.3300e-003	0.1522	0.0400	1.2200e-003	0.0412		169.1575	169.1575	8.4500e-003		169.3350
Total	**0.1349**	**0.6378**	**1.7393**	**3.3900e-003**	**0.1905**	**9.8300e-003**	**0.2003**	**0.0513**	**9.0300e-003**	**0.0603**		**307.0423**	**307.0423**	**9.5300e-003**		**307.2424**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.583 2	1,083.583 2	0.2969		1,089.817 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.583 2**	**1,083.583 2**	**0.2969**		**1,089.817 5**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	174.8786					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**175.2470**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	0.0129	0.1557	3.8000e-004	0.0283	2.5000e-004	0.0285	7.5000e-003	2.3000e-004	7.7300e-003		31.7170	31.7170	1.5800e-003		31.7503
Total	**0.0112**	**0.0129**	**0.1557**	**3.8000e-004**	**0.0283**	**2.5000e-004**	**0.0285**	**7.5000e-003**	**2.3000e-004**	**7.7300e-003**		**31.7170**	**31.7170**	**1.5800e-003**		**31.7503**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	174.8786					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**175.2470**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0112	0.0129	0.1557	3.8000e-004	0.0283	2.5000e-004	0.0285	7.5000e-003	2.3000e-004	7.7300e-003		31.7170	31.7170	1.5800e-003		31.7503
Total	**0.0112**	**0.0129**	**0.1557**	**3.8000e-004**	**0.0283**	**2.5000e-004**	**0.0285**	**7.5000e-003**	**2.3000e-004**	**7.7300e-003**		**31.7170**	**31.7170**	**1.5800e-003**		**31.7503**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9043	6.5048	41.9253	0.0499	1.1736	0.0996	1.2731	0.3385	0.0996	0.4381		2,131.6316	2,131.6316	0.3269		2,138.4962
Unmitigated	3.9043	6.5048	41.9253	0.0499	1.1736	0.0996	1.2731	0.3385	0.0996	0.4381		2,131.6316	2,131.6316	0.3269		2,138.4962

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	239.96	239.96	239.96	609,394	609,394
Total	239.96	239.96	239.96	609,394	609,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849
NaturalGas Unmitigated	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	2806.49	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849
Total		**0.0303**	**0.2752**	**0.2311**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.1755**	**330.1755**	**6.3300e-003**	**6.0500e-003**	**332.1849**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	2.80649	0.0303	0.2752	0.2311	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.1755	330.1755	6.3300e-003	6.0500e-003	332.1849
Total		**0.0303**	**0.2752**	**0.2311**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.1755**	**330.1755**	**6.3300e-003**	**6.0500e-003**	**332.1849**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0479	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003
Unmitigated	1.0479	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003
Total	**1.0479**	**5.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**8.2600e-003**	**8.2600e-003**	**6.0000e-005**		**9.4400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6000e-004	5.0000e-005	6.8300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		8.2600e-003	8.2600e-003	6.0000e-005		9.4400e-003
Total	**1.0479**	**5.0000e-005**	**6.8300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**8.2600e-003**	**8.2600e-003**	**6.0000e-005**		**9.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 27

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	147.51	1000sqft	3.39	147,509.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.407 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	4.41
tblVehicleTrips	SU_TR	1.21	4.41
tblVehicleTrips	WD_TR	27.49	4.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1440	54.7099	42.0397	0.0418	18.2360	2.9402	21.1762	9.9757	2.7050	12.6807	0.0000	4,255.3075	4,255.3075	1.2357	0.0000	4,281.2562
2017	190.2913	28.6977	24.4450	0.0401	0.7432	1.8157	2.5589	0.2003	1.7047	1.9049	0.0000	3,813.4943	3,813.4943	0.6841	0.0000	3,827.8596
Total	**195.4353**	**83.4075**	**66.4847**	**0.0819**	**18.9792**	**4.7558**	**23.7351**	**10.1760**	**4.4096**	**14.5856**	**0.0000**	**8,068.8018**	**8,068.8018**	**1.9197**	**0.0000**	**8,109.1158**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1440	54.7099	42.0397	0.0418	18.2360	2.9402	21.1762	9.9757	2.7050	12.6807	0.0000	4,255.3075	4,255.3075	1.2357	0.0000	4,281.2562
2017	190.2913	28.6977	24.4450	0.0401	0.7432	1.8157	2.5589	0.2003	1.7047	1.9049	0.0000	3,813.4943	3,813.4943	0.6841	0.0000	3,827.8596
Total	**195.4353**	**83.4075**	**66.4847**	**0.0819**	**18.9792**	**4.7558**	**23.7351**	**10.1760**	**4.4096**	**14.5856**	**0.0000**	**8,068.8018**	**8,068.8018**	**1.9197**	**0.0000**	**8,109.1158**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0997	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451
Energy	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.852 3	1,290.852 3	0.0247	0.0237	1,298.708 2
Mobile	22.3653	27.7625	261.6555	1.9921	3.1795	0.3421	3.5216	0.9173	0.3421	1.2594		5,514.188 9	5,514.188 9	1.5887		5,547.552 4
Total	**26.5834**	**28.8384**	**262.6082**	**1.9986**	**3.1795**	**0.4240**	**3.6035**	**0.9173**	**0.4240**	**1.3412**		**6,805.073 5**	**6,805.073 5**	**1.6141**	**0.0237**	**6,846.305 7**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0997	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451
Energy	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.852 3	1,290.852 3	0.0247	0.0237	1,298.708 2
Mobile	22.3653	27.7625	261.6555	1.9921	3.1795	0.3421	3.5216	0.9173	0.3421	1.2594		5,514.188 9	5,514.188 9	1.5887		5,547.552 4
Total	**26.5834**	**28.8384**	**262.6082**	**1.9986**	**3.1795**	**0.4240**	**3.6035**	**0.9173**	**0.4240**	**1.3412**		**6,805.073 5**	**6,805.073 5**	**1.6141**	**0.0237**	**6,846.305 7**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2017	5	230	
5	Paving	Paving	1/4/2017	1/27/2017	5	18	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 221,264; Non-Residential Outdoor: 73,755 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	62.00	24.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.284 1	4,089.284 1	1.1121		4,112.637 4
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**		**2.2921**	**2.2921**		**2.1365**	**2.1365**		**4,089.284 1**	**4,089.284 1**	**1.1121**		**4,112.637 4**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**		**2.2921**	**2.2921**		**2.1365**	**2.1365**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3017	2.2755	3.6350	5.5200e-003	0.1585	0.0340	0.1924	0.0452	0.0312	0.0764		551.5391	551.5391	4.3100e-003		551.6296
Worker	0.2305	0.2671	3.2185	7.8000e-003	0.5847	5.1500e-003	0.5898	0.1551	4.7400e-003	0.1598		655.4854	655.4854	0.0327		656.1730
Total	**0.5322**	**2.5426**	**6.8535**	**0.0133**	**0.7431**	**0.0391**	**0.7823**	**0.2003**	**0.0360**	**0.2362**		**1,207.0245**	**1,207.0245**	**0.0371**		**1,207.8026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3017	2.2755	3.6350	5.5200e-003	0.1585	0.0340	0.1924	0.0452	0.0312	0.0764		551.5391	551.5391	4.3100e-003		551.6296
Worker	0.2305	0.2671	3.2185	7.8000e-003	0.5847	5.1500e-003	0.5898	0.1551	4.7400e-003	0.1598		655.4854	655.4854	0.0327		656.1730
Total	**0.5322**	**2.5426**	**6.8535**	**0.0133**	**0.7431**	**0.0391**	**0.7823**	**0.2003**	**0.0360**	**0.2362**		**1,207.0245**	**1,207.0245**	**0.0371**		**1,207.8026**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2756	2.0504	3.3944	5.5200e-003	0.1585	0.0295	0.1880	0.0452	0.0271	0.0723		543.2424	543.2424	4.1000e-003		543.3284
Worker	0.2094	0.2416	2.9215	7.8000e-003	0.5847	4.9900e-003	0.5897	0.1551	4.6000e-003	0.1597		630.4466	630.4466	0.0303		631.0822
Total	**0.4849**	**2.2920**	**6.3159**	**0.0133**	**0.7432**	**0.0345**	**0.7777**	**0.2003**	**0.0317**	**0.2320**		**1,173.689 0**	**1,173.689 0**	**0.0344**		**1,174.410 6**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.805 3**	**2,639.805 3**	**0.6497**		**2,653.449 0**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2756	2.0504	3.3944	5.5200e-003	0.1585	0.0295	0.1880	0.0452	0.0271	0.0723		543.2424	543.2424	4.1000e-003		543.3284
Worker	0.2094	0.2416	2.9215	7.8000e-003	0.5847	4.9900e-003	0.5897	0.1551	4.6000e-003	0.1597		630.4466	630.4466	0.0303		631.0822
Total	**0.4849**	**2.2920**	**6.3159**	**0.0133**	**0.7432**	**0.0345**	**0.7777**	**0.2003**	**0.0317**	**0.2320**		**1,173.6890**	**1,173.6890**	**0.0344**		**1,174.4106**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6554**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**		**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6554**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**	**0.0000**	**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	189.9185					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**190.2508**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0468	0.5654	1.5100e-003	0.1132	9.7000e-004	0.1141	0.0300	8.9000e-004	0.0309		122.0219	122.0219	5.8600e-003		122.1449
Total	**0.0405**	**0.0468**	**0.5654**	**1.5100e-003**	**0.1132**	**9.7000e-004**	**0.1141**	**0.0300**	**8.9000e-004**	**0.0309**		**122.0219**	**122.0219**	**5.8600e-003**		**122.1449**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	189.9185					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**190.2508**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0405	0.0468	0.5654	1.5100e-003	0.1132	9.7000e-004	0.1141	0.0300	8.9000e-004	0.0309		122.0219	122.0219	5.8600e-003		122.1449
Total	**0.0405**	**0.0468**	**0.5654**	**1.5100e-003**	**0.1132**	**9.7000e-004**	**0.1141**	**0.0300**	**8.9000e-004**	**0.0309**		**122.0219**	**122.0219**	**5.8600e-003**		**122.1449**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	22.3653	27.7625	261.6555	1.9921	3.1795	0.3421	3.5216	0.9173	0.3421	1.2594		5,514.1889	5,514.1889	1.5887		5,547.5524
Unmitigated	22.3653	27.7625	261.6555	1.9921	3.1795	0.3421	3.5216	0.9173	0.3421	1.2594		5,514.1889	5,514.1889	1.5887		5,547.5524

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	650.07	650.07	650.07	1,650,882	1,650,882
Total	650.07	650.07	650.07	1,650,882	1,650,882

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.8523	1,290.8523	0.0247	0.0237	1,298.7082
NaturalGas Unmitigated	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.8523	1,290.8523	0.0247	0.0237	1,298.7082

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	10972.2	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.8523	1,290.8523	0.0247	0.0237	1,298.7082
Total		**0.1183**	**1.0757**	**0.9036**	**6.4500e-003**		**0.0818**	**0.0818**		**0.0818**	**0.0818**		**1,290.8523**	**1,290.8523**	**0.0247**	**0.0237**	**1,298.7082**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	10.9722	0.1183	1.0757	0.9036	6.4500e-003		0.0818	0.0818		0.0818	0.0818		1,290.8523	1,290.8523	0.0247	0.0237	1,298.7082
Total		**0.1183**	**1.0757**	**0.9036**	**6.4500e-003**		**0.0818**	**0.0818**		**0.0818**	**0.0818**		**1,290.8523**	**1,290.8523**	**0.0247**	**0.0237**	**1,298.7082**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0997	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451
Unmitigated	4.0997	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451
Total	**4.0997**	**1.7000e-004**	**0.0492**	**2.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0323**	**0.0323**	**6.1000e-004**		**0.0451**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4600e-003	1.7000e-004	0.0492	2.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		0.0323	0.0323	6.1000e-004		0.0451
Total	**4.0997**	**1.7000e-004**	**0.0492**	**2.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**		**0.0323**	**0.0323**	**6.1000e-004**		**0.0451**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 28

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	190.07	1000sqft	4.36	190,066.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.367 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	4.37
tblVehicleTrips	SU_TR	1.21	4.37
tblVehicleTrips	WD_TR	27.49	4.37

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1440	54.7099	42.0397	0.0440	18.2360	2.9402	21.1762	9.9757	2.7050	12.6807	0.0000	4,255.3075	4,255.3075	1.2357	0.0000	4,281.2562
2017	245.0963	29.3659	26.2832	0.0440	0.9592	1.8257	2.7849	0.2585	1.7139	1.9724	0.0000	4,154.9729	4,154.9729	0.6940	0.0000	4,169.5478
Total	**250.2403**	**84.0757**	**68.3229**	**0.0880**	**19.1952**	**4.7659**	**23.9611**	**10.2342**	**4.4189**	**14.6530**	**0.0000**	**8,410.2803**	**8,410.2803**	**1.9297**	**0.0000**	**8,450.8040**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1440	54.7099	42.0397	0.0440	18.2360	2.9402	21.1762	9.9757	2.7050	12.6807	0.0000	4,255.3075	4,255.3075	1.2357	0.0000	4,281.2562
2017	245.0963	29.3659	26.2832	0.0440	0.9592	1.8257	2.7849	0.2585	1.7139	1.9724	0.0000	4,154.9729	4,154.9729	0.6940	0.0000	4,169.5478
Total	**250.2403**	**84.0757**	**68.3229**	**0.0880**	**19.1952**	**4.7659**	**23.9611**	**10.2342**	**4.4189**	**14.6530**	**0.0000**	**8,410.2803**	**8,410.2803**	**1.9297**	**0.0000**	**8,450.8040**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2825	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581
Energy	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913
Mobile	28.5568	35.4482	334.0912	2.5436	4.0597	0.4368	4.4965	1.1712	0.4368	1.6080		7,040.7162	7,040.7162	2.0286		7,083.3159
Total	**33.9918**	**36.8345**	**335.3188**	**2.5520**	**4.0597**	**0.5423**	**4.6020**	**1.1712**	**0.5423**	**1.7135**		**8,704.0267**	**8,704.0267**	**2.0612**	**0.0305**	**8,756.7652**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2825	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581
Energy	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913
Mobile	28.5568	35.4482	334.0912	2.5436	4.0597	0.4368	4.4965	1.1712	0.4368	1.6080		7,040.7162	7,040.7162	2.0286		7,083.3159
Total	**33.9918**	**36.8345**	**335.3188**	**2.5520**	**4.0597**	**0.5423**	**4.6020**	**1.1712**	**0.5423**	**1.7135**		**8,704.0267**	**8,704.0267**	**2.0612**	**0.0305**	**8,756.7652**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2017	5	230	
5	Paving	Paving	1/4/2017	1/27/2017	5	18	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 285,099; Non-Residential Outdoor: 95,033 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	80.00	31.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**		**2.2921**	**2.2921**		**2.1365**	**2.1365**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**		**2.2921**	**2.2921**		**2.1365**	**2.1365**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3897	2.9392	4.6952	7.1400e-003	0.2047	0.0439	0.2486	0.0584	0.0403	0.0987		712.4047	712.4047	5.5700e-003		712.5216
Worker	0.2974	0.3447	4.1529	0.0101	0.7544	6.6500e-003	0.7611	0.2001	6.1200e-003	0.2062		845.7877	845.7877	0.0422		846.6748
Total	**0.6871**	**3.2838**	**8.8481**	**0.0172**	**0.9591**	**0.0505**	**1.0096**	**0.2585**	**0.0465**	**0.3049**		**1,558.1923**	**1,558.1923**	**0.0478**		**1,559.1964**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3897	2.9392	4.6952	7.1400e-003	0.2047	0.0439	0.2486	0.0584	0.0403	0.0987		712.4047	712.4047	5.5700e-003		712.5216
Worker	0.2974	0.3447	4.1529	0.0101	0.7544	6.6500e-003	0.7611	0.2001	6.1200e-003	0.2062		845.7877	845.7877	0.0422		846.6748
Total	**0.6871**	**3.2838**	**8.8481**	**0.0172**	**0.9591**	**0.0505**	**1.0096**	**0.2585**	**0.0465**	**0.3049**		**1,558.1923**	**1,558.1923**	**0.0478**		**1,559.1964**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3559	2.6484	4.3845	7.1300e-003	0.2048	0.0381	0.2428	0.0584	0.0350	0.0934		701.6880	701.6880	5.2900e-003		701.7991
Worker	0.2701	0.3118	3.7696	0.0101	0.7544	6.4400e-003	0.7609	0.2001	5.9400e-003	0.2060		813.4795	813.4795	0.0391		814.2996
Total	**0.6261**	**2.9602**	**8.1541**	**0.0172**	**0.9592**	**0.0445**	**1.0037**	**0.2585**	**0.0409**	**0.2994**		**1,515.1675**	**1,515.1675**	**0.0443**		**1,516.0987**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3559	2.6484	4.3845	7.1300e-003	0.2048	0.0381	0.2428	0.0584	0.0350	0.0934		701.6880	701.6880	5.2900e-003		701.7991
Worker	0.2701	0.3118	3.7696	0.0101	0.7544	6.4400e-003	0.7609	0.2001	5.9400e-003	0.2060		813.4795	813.4795	0.0391		814.2996
Total	**0.6261**	**2.9602**	**8.1541**	**0.0172**	**0.9592**	**0.0445**	**1.0037**	**0.2585**	**0.0409**	**0.2994**		**1,515.1675**	**1,515.1675**	**0.0443**		**1,516.0987**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269		1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6554**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**		**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6554	16.8035	12.4837	0.0186		1.0056	1.0056		0.9269	0.9269	0.0000	1,873.8264	1,873.8264	0.5588		1,885.5609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6554**	**16.8035**	**12.4837**	**0.0186**		**1.0056**	**1.0056**		**0.9269**	**0.9269**	**0.0000**	**1,873.8264**	**1,873.8264**	**0.5588**		**1,885.5609**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	244.7100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**245.0423**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0624	0.7539	2.0100e-003	0.1509	1.2900e-003	0.1522	0.0400	1.1900e-003	0.0412		162.6959	162.6959	7.8100e-003		162.8599
Total	**0.0540**	**0.0624**	**0.7539**	**2.0100e-003**	**0.1509**	**1.2900e-003**	**0.1522**	**0.0400**	**1.1900e-003**	**0.0412**		**162.6959**	**162.6959**	**7.8100e-003**		**162.8599**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	244.7100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**245.0423**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0624	0.7539	2.0100e-003	0.1509	1.2900e-003	0.1522	0.0400	1.1900e-003	0.0412		162.6959	162.6959	7.8100e-003		162.8599
Total	**0.0540**	**0.0624**	**0.7539**	**2.0100e-003**	**0.1509**	**1.2900e-003**	**0.1522**	**0.0400**	**1.1900e-003**	**0.0412**		**162.6959**	**162.6959**	**7.8100e-003**		**162.8599**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	28.5568	35.4482	334.0912	2.5436	4.0597	0.4368	4.4965	1.1712	0.4368	1.6080		7,040.7162	7,040.7162	2.0286		7,083.3159
Unmitigated	28.5568	35.4482	334.0912	2.5436	4.0597	0.4368	4.4965	1.1712	0.4368	1.6080		7,040.7162	7,040.7162	2.0286		7,083.3159

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	830.04	830.04	830.04	2,107,906	2,107,906
Total	830.04	830.04	830.04	2,107,906	2,107,906

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913
NaturalGas Unmitigated	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	14137.8	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913
Total		**0.1525**	**1.3861**	**1.1643**	**8.3200e-003**		**0.1053**	**0.1053**		**0.1053**	**0.1053**		**1,663.2689**	**1,663.2689**	**0.0319**	**0.0305**	**1,673.3913**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	14.1378	0.1525	1.3861	1.1643	8.3200e-003		0.1053	0.1053		0.1053	0.1053		1,663.2689	1,663.2689	0.0319	0.0305	1,673.3913
Total		**0.1525**	**1.3861**	**1.1643**	**8.3200e-003**		**0.1053**	**0.1053**		**0.1053**	**0.1053**		**1,663.2689**	**1,663.2689**	**0.0319**	**0.0305**	**1,673.3913**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2825	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581
Unmitigated	5.2825	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3200e-003	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581
Total	**5.2825**	**2.3000e-004**	**0.0633**	**2.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0416**	**0.0416**	**7.8000e-004**		**0.0581**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3200e-003	2.3000e-004	0.0633	2.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0416	0.0416	7.8000e-004		0.0581
Total	**5.2825**	**2.3000e-004**	**0.0633**	**2.0000e-005**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0416**	**0.0416**	**7.8000e-004**		**0.0581**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 30

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	99.55	1000sqft	2.29	99,552.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.433 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.43
tblVehicleTrips	SU_TR	1.21	7.43
tblVehicleTrips	WD_TR	27.49	7.43

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	231.1100	30.8582	22.1728	0.0339	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,163.9551	3,163.9551	0.7523	0.0000	3,179.7536
2017	231.0711	2.2162	2.2450	3.9800e-003	0.0754	0.1740	0.2494	0.0200	0.1739	0.1939	0.0000	362.7960	362.7960	0.0336	0.0000	363.5020
Total	**462.1810**	**33.0745**	**24.4179**	**0.0378**	**6.7221**	**1.9196**	**8.5640**	**3.4125**	**1.8077**	**5.1209**	**0.0000**	**3,526.7511**	**3,526.7511**	**0.7859**	**0.0000**	**3,543.2557**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	231.1100	30.8582	22.1728	0.0339	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,163.9551	3,163.9551	0.7523	0.0000	3,179.7536
2017	231.0711	2.2162	2.2450	3.9800e-003	0.0754	0.1740	0.2494	0.0200	0.1739	0.1939	0.0000	362.7960	362.7960	0.0336	0.0000	363.5020
Total	**462.1810**	**33.0745**	**24.4179**	**0.0378**	**6.7221**	**1.9196**	**8.5640**	**3.4125**	**1.8077**	**5.1209**	**0.0000**	**3,526.7511**	**3,526.7511**	**0.7859**	**0.0000**	**3,543.2557**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7642	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239
Energy	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821
Mobile	7.0595	13.2482	73.7838	0.1252	3.6188	0.2895	3.9083	1.0438	0.2895	1.3332		6,480.1542	6,480.1542	0.6244		6,493.2674
Total	**9.9036**	**13.9743**	**74.4065**	**0.1296**	**3.6188**	**0.3447**	**3.9635**	**1.0438**	**0.3447**	**1.3885**		**7,351.3562**	**7,351.3562**	**0.6412**	**0.0160**	**7,369.7734**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.7642	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239
Energy	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821
Mobile	7.0595	13.2482	73.7838	0.1252	3.6188	0.2895	3.9083	1.0438	0.2895	1.3332		6,480.1542	6,480.1542	0.6244		6,493.2674
Total	**9.9036**	**13.9743**	**74.4065**	**0.1296**	**3.6188**	**0.3447**	**3.9635**	**1.0438**	**0.3447**	**1.3885**		**7,351.3562**	**7,351.3562**	**0.6412**	**0.0160**	**7,369.7734**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 149,328; Non-Residential Outdoor: 49,776 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	42.00	16.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907		2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**		**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907	0.0000	2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**	**0.0000**	**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337		2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**		**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337	0.0000	2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**	**0.0000**	**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569		2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**		**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2011	1.5170	2.4233	3.6800e-003	0.1056	0.0227	0.1283	0.0301	0.0208	0.0509		367.6927	367.6927	2.8700e-003		367.7531
Worker	0.1561	0.1810	2.1803	5.2800e-003	0.3961	3.4900e-003	0.3996	0.1051	3.2100e-003	0.1083		444.0385	444.0385	0.0222		444.5043
Total	**0.3573**	**1.6979**	**4.6036**	**8.9600e-003**	**0.5017**	**0.0261**	**0.5279**	**0.1352**	**0.0240**	**0.1592**		**811.7313**	**811.7313**	**0.0251**		**812.2573**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569	0.0000	2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**	**0.0000**	**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2011	1.5170	2.4233	3.6800e-003	0.1056	0.0227	0.1283	0.0301	0.0208	0.0509		367.6927	367.6927	2.8700e-003		367.7531
Worker	0.1561	0.1810	2.1803	5.2800e-003	0.3961	3.4900e-003	0.3996	0.1051	3.2100e-003	0.1083		444.0385	444.0385	0.0222		444.5043
Total	**0.3573**	**1.6979**	**4.6036**	**8.9600e-003**	**0.5017**	**0.0261**	**0.5279**	**0.1352**	**0.0240**	**0.1592**		**811.7313**	**811.7313**	**0.0251**		**812.2573**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363		1,804.860 0	1,804.860 0	0.5344		1,816.082 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**		**1,804.860 0**	**1,804.860 0**	**0.5344**		**1,816.082 8**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363	0.0000	1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**	**0.0000**	**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	230.7118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**231.0802**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	230.7118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**231.0802**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	230.7118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**231.0441**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0270	0.0312	0.3770	1.0100e-003	0.0754	6.4000e-004	0.0761	0.0200	5.9000e-004	0.0206		81.3480	81.3480	3.9100e-003		81.4300
Total	**0.0270**	**0.0312**	**0.3770**	**1.0100e-003**	**0.0754**	**6.4000e-004**	**0.0761**	**0.0200**	**5.9000e-004**	**0.0206**		**81.3480**	**81.3480**	**3.9100e-003**		**81.4300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	230.7118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**231.0441**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0270	0.0312	0.3770	1.0100e-003	0.0754	6.4000e-004	0.0761	0.0200	5.9000e-004	0.0206		81.3480	81.3480	3.9100e-003		81.4300
Total	**0.0270**	**0.0312**	**0.3770**	**1.0100e-003**	**0.0754**	**6.4000e-004**	**0.0761**	**0.0200**	**5.9000e-004**	**0.0206**		**81.3480**	**81.3480**	**3.9100e-003**		**81.4300**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.0595	13.2482	73.7838	0.1252	3.6188	0.2895	3.9083	1.0438	0.2895	1.3332		6,480.1542	6,480.1542	0.6244		6,493.2674
Unmitigated	7.0595	13.2482	73.7838	0.1252	3.6188	0.2895	3.9083	1.0438	0.2895	1.3332		6,480.1542	6,480.1542	0.6244		6,493.2674

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	739.97	739.97	739.97	1,879,181	1,879,181
Total	739.97	739.97	739.97	1,879,181	1,879,181

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821
NaturalGas Unmitigated	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	7405.03	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821
Total		**0.0799**	**0.7260**	**0.6098**	**4.3600e-003**		**0.0552**	**0.0552**		**0.0552**	**0.0552**		**871.1803**	**871.1803**	**0.0167**	**0.0160**	**876.4821**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	7.40503	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1803	871.1803	0.0167	0.0160	876.4821
Total		**0.0799**	**0.7260**	**0.6098**	**4.3600e-003**		**0.0552**	**0.0552**		**0.0552**	**0.0552**		**871.1803**	**871.1803**	**0.0167**	**0.0160**	**876.4821**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7642	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239
Unmitigated	2.7642	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6321					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6700e-003	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239
Total	**2.7642**	**1.5000e-004**	**0.0129**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0218**	**0.0218**	**1.0000e-004**		**0.0239**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	2.1304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6700e-003	1.5000e-004	0.0129	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0218	0.0218	1.0000e-004		0.0239
Architectural Coating	0.6321					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7642**	**1.5000e-004**	**0.0129**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0218**	**0.0218**	**1.0000e-004**		**0.0239**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 31

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	73.67	1000sqft	1.69	73,666.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.33 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.33
tblVehicleTrips	SU_TR	1.21	7.33
tblVehicleTrips	WD_TR	27.49	7.33

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	171.1117	28.3139	22.1728	0.0286	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,650.4555	2,650.4555	0.6357	0.0000	2,663.8044
Total	**171.1117**	**28.3139**	**22.1728**	**0.0286**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,650.4555**	**2,650.4555**	**0.6357**	**0.0000**	**2,663.8044**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	171.1117	28.3139	22.1728	0.0286	5.8750	1.7456	7.2742	2.9737	1.6338	4.2609	0.0000	2,650.4555	2,650.4555	0.6357	0.0000	2,663.8044
Total	**171.1117**	**28.3139**	**22.1728**	**0.0286**	**5.8750**	**1.7456**	**7.2742**	**2.9737**	**1.6338**	**4.2609**	**0.0000**	**2,650.4555**	**2,650.4555**	**0.6357**	**0.0000**	**2,663.8044**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0454	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177
Energy	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749
Mobile	5.1515	9.6675	53.8416	0.0914	2.6407	0.2112	2.8520	0.7617	0.2112	0.9729		4,728.7056	4,728.7056	0.4557		4,738.2746
Total	**7.2560**	**10.2048**	**54.3024**	**0.0946**	**2.6407**	**0.2521**	**2.8929**	**0.7617**	**0.2521**	**1.0138**		**5,373.3734**	**5,373.3734**	**0.4681**	**0.0118**	**5,386.8672**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0454	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177
Energy	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749
Mobile	5.1515	9.6675	53.8416	0.0914	2.6407	0.2112	2.8520	0.7617	0.2112	0.9729		4,728.7056	4,728.7056	0.4557		4,738.2746
Total	**7.2560**	**10.2048**	**54.3024**	**0.0946**	**2.6407**	**0.2521**	**2.8929**	**0.7617**	**0.2521**	**1.0138**		**5,373.3734**	**5,373.3734**	**0.4681**	**0.0118**	**5,386.8672**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 110,499; Non-Residential Outdoor: 36,833 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	31.00	12.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866		1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**		**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.4428	25.7718	16.5144	0.0171		1.3985	1.3985		1.2866	1.2866	0.0000	1,781.0872	1,781.0872	0.5372		1,792.3693
Total	**2.4428**	**25.7718**	**16.5144**	**0.0171**	**5.7996**	**1.3985**	**7.1981**	**2.9537**	**1.2866**	**4.2403**	**0.0000**	**1,781.0872**	**1,781.0872**	**0.5372**		**1,792.3693**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494		1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**		**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.9908	21.0361	13.6704	0.0141		1.1407	1.1407		1.0494	1.0494	0.0000	1,462.8468	1,462.8468	0.4413		1,472.1130
Total	**1.9908**	**21.0361**	**13.6704**	**0.0141**	**4.9143**	**1.1407**	**6.0549**	**2.5256**	**1.0494**	**3.5750**	**0.0000**	**1,462.8468**	**1,462.8468**	**0.4413**		**1,472.1130**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176		2,046.943 2	2,046.943 2	0.4499		2,056.391 3
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**		**2,046.943 2**	**2,046.943 2**	**0.4499**		**2,056.391 3**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1508	1.1377	1.8175	2.7600e-003	0.0792	0.0170	0.0962	0.0226	0.0156	0.0382		275.7696	275.7696	2.1500e-003		275.8148
Worker	0.1153	0.1336	1.6092	3.9000e-003	0.2923	2.5800e-003	0.2949	0.0775	2.3700e-003	0.0799		327.7427	327.7427	0.0164		328.0865
Total	**0.2661**	**1.2713**	**3.4267**	**6.6600e-003**	**0.3716**	**0.0196**	**0.3911**	**0.1001**	**0.0180**	**0.1181**		**603.5123**	**603.5123**	**0.0185**		**603.9013**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2915	20.5459	14.7074	0.0220		1.3656	1.3656		1.3176	1.3176	0.0000	2,046.9432	2,046.9432	0.4499		2,056.3913
Total	**3.2915**	**20.5459**	**14.7074**	**0.0220**		**1.3656**	**1.3656**		**1.3176**	**1.3176**	**0.0000**	**2,046.9432**	**2,046.9432**	**0.4499**		**2,056.3913**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1508	1.1377	1.8175	2.7600e-003	0.0792	0.0170	0.0962	0.0226	0.0156	0.0382		275.7696	275.7696	2.1500e-003		275.8148
Worker	0.1153	0.1336	1.6092	3.9000e-003	0.2923	2.5800e-003	0.2949	0.0775	2.3700e-003	0.0799		327.7427	327.7427	0.0164		328.0865
Total	**0.2661**	**1.2713**	**3.4267**	**6.6600e-003**	**0.3716**	**0.0196**	**0.3911**	**0.1001**	**0.0180**	**0.1181**		**603.5123**	**603.5123**	**0.0185**		**603.9013**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438	0.0000	1,368.436 6	1,368.436 6	0.4053		1,376.947 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2872**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**	**0.0000**	**1,368.436 6**	**1,368.436 6**	**0.4053**		**1,376.947 3**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	170.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**171.0894**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0259	0.3115	7.5000e-004	0.0566	5.0000e-004	0.0571	0.0150	4.6000e-004	0.0155		63.4341	63.4341	3.1700e-003		63.5006
Total	**0.0223**	**0.0259**	**0.3115**	**7.5000e-004**	**0.0566**	**5.0000e-004**	**0.0571**	**0.0150**	**4.6000e-004**	**0.0155**		**63.4341**	**63.4341**	**3.1700e-003**		**63.5006**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	170.7210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**171.0894**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0259	0.3115	7.5000e-004	0.0566	5.0000e-004	0.0571	0.0150	4.6000e-004	0.0155		63.4341	63.4341	3.1700e-003		63.5006
Total	**0.0223**	**0.0259**	**0.3115**	**7.5000e-004**	**0.0566**	**5.0000e-004**	**0.0571**	**0.0150**	**4.6000e-004**	**0.0155**		**63.4341**	**63.4341**	**3.1700e-003**		**63.5006**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	5.1515	9.6675	53.8416	0.0914	2.6407	0.2112	2.8520	0.7617	0.2112	0.9729		4,728.7056	4,728.7056	0.4557		4,738.2746
Unmitigated	5.1515	9.6675	53.8416	0.0914	2.6407	0.2112	2.8520	0.7617	0.2112	0.9729		4,728.7056	4,728.7056	0.4557		4,738.2746

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	539.97	539.97	539.97	1,371,278	1,371,278
Total	539.97	539.97	539.97	1,371,278	1,371,278

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749
NaturalGas Unmitigated	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	5479.54	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749
Total		**0.0591**	**0.5372**	**0.4513**	**3.2200e-003**		**0.0408**	**0.0408**		**0.0408**	**0.0408**		**644.6517**	**644.6517**	**0.0124**	**0.0118**	**648.5749**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	5.47954	0.0591	0.5372	0.4513	3.2200e-003		0.0408	0.0408		0.0408	0.0408		644.6517	644.6517	0.0124	0.0118	648.5749
Total		**0.0591**	**0.5372**	**0.4513**	**3.2200e-003**		**0.0408**	**0.0408**		**0.0408**	**0.0408**		**644.6517**	**644.6517**	**0.0124**	**0.0118**	**648.5749**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0454	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177
Unmitigated	2.0454	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2400e-003	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177
Total	**2.0454**	**1.1000e-004**	**9.5700e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0161**	**0.0161**	**8.0000e-005**		**0.0177**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5765					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2400e-003	1.1000e-004	9.5700e-003	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0161	0.0161	8.0000e-005		0.0177
Total	**2.0454**	**1.1000e-004**	**9.5700e-003**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0161**	**0.0161**	**8.0000e-005**		**0.0177**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 33

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	25.92	1000sqft	0.60	25,920.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.33 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.33
tblVehicleTrips	SU_TR	1.21	7.33
tblVehicleTrips	WD_TR	27.49	7.33

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	120.5151	14.1325	9.3890	0.0136	0.8471	0.9464	1.6518	0.4388	0.8707	1.2069	0.0000	1,386.7738	1,386.7738	0.3620	0.0000	1,394.3763
Total	**120.5151**	**14.1325**	**9.3890**	**0.0136**	**0.8471**	**0.9464**	**1.6518**	**0.4388**	**0.8707**	**1.2069**	**0.0000**	**1,386.7738**	**1,386.7738**	**0.3620**	**0.0000**	**1,394.3763**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	120.5151	14.1325	9.3890	0.0136	0.8471	0.9464	1.6518	0.4388	0.8707	1.2069	0.0000	1,386.7738	1,386.7738	0.3620	0.0000	1,394.3763
Total	**120.5151**	**14.1325**	**9.3890**	**0.0136**	**0.8471**	**0.9464**	**1.6518**	**0.4388**	**0.8707**	**1.2069**	**0.0000**	**1,386.7738**	**1,386.7738**	**0.3620**	**0.0000**	**1,394.3763**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7197	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003
Energy	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065
Mobile	1.8126	3.4016	18.9446	0.0321	0.9292	0.0743	1.0035	0.2680	0.0743	0.3423		1,663.8347	1,663.8347	0.1603		1,667.2017
Total	**2.5531**	**3.5907**	**19.1068**	**0.0333**	**0.9292**	**0.0887**	**1.0179**	**0.2680**	**0.0887**	**0.3567**		**1,890.6665**	**1,890.6665**	**0.1647**	**4.1600e-003**	**1,895.4144**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7197	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003
Energy	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065
Mobile	1.8126	3.4016	18.9446	0.0321	0.9292	0.0743	1.0035	0.2680	0.0743	0.3423		1,663.8347	1,663.8347	0.1603		1,667.2017
Total	**2.5531**	**3.5907**	**19.1068**	**0.0333**	**0.9292**	**0.0887**	**1.0179**	**0.2680**	**0.0887**	**0.3567**		**1,890.6665**	**1,890.6665**	**0.1647**	**4.1600e-003**	**1,895.4144**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 38,880; Non-Residential Outdoor: 12,960 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.610 6	1,193.610 6	0.2386		1,198.621 7
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**		**0.8039**	**0.8039**		**0.7674**	**0.7674**	**0.0000**	**1,193.610 6**	**1,193.610 6**	**0.2386**		**1,198.621 7**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671		973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**		**973.0842**	**973.0842**	**0.2935**		**979.2481**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.3593	13.6350	7.3401	9.3500e-003		0.8338	0.8338		0.7671	0.7671	0.0000	973.0842	973.0842	0.2935		979.2481
Total	**1.3593**	**13.6350**	**7.3401**	**9.3500e-003**	**0.5303**	**0.8338**	**1.3640**	**0.0573**	**0.7671**	**0.8243**	**0.0000**	**973.0842**	**973.0842**	**0.2935**		**979.2481**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0186	0.0215	0.2596	6.3000e-004	0.0472	4.2000e-004	0.0476	0.0125	3.8000e-004	0.0129		52.8617	52.8617	2.6400e-003		52.9172
Total	**0.0186**	**0.0215**	**0.2596**	**6.3000e-004**	**0.0472**	**4.2000e-004**	**0.0476**	**0.0125**	**3.8000e-004**	**0.0129**		**52.8617**	**52.8617**	**2.6400e-003**		**52.9172**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674		1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**		**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.3122	11.2385	8.7048	0.0120		0.8039	0.8039		0.7674	0.7674	0.0000	1,193.6106	1,193.6106	0.2386		1,198.6217
Total	**1.3122**	**11.2385**	**8.7048**	**0.0120**	**0.7528**	**0.8039**	**1.5566**	**0.4138**	**0.7674**	**1.1811**	**0.0000**	**1,193.6106**	**1,193.6106**	**0.2386**		**1,198.6217**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646		1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**		**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0409	0.0474	0.5710	1.3800e-003	0.1037	9.1000e-004	0.1047	0.0275	8.4000e-004	0.0284		116.2958	116.2958	5.8100e-003		116.4178
Total	**0.0912**	**0.4266**	**1.1769**	**2.3000e-003**	**0.1301**	**6.5700e-003**	**0.1367**	**0.0350**	**6.0400e-003**	**0.0411**		**208.2190**	**208.2190**	**6.5300e-003**		**208.3561**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3816	13.7058	8.2122	0.0113		0.9398	0.9398		0.8646	0.8646	0.0000	1,178.5549	1,178.5549	0.3555		1,186.0202
Total	**1.3816**	**13.7058**	**8.2122**	**0.0113**		**0.9398**	**0.9398**		**0.8646**	**0.8646**	**0.0000**	**1,178.5549**	**1,178.5549**	**0.3555**		**1,186.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0503	0.3793	0.6058	9.2000e-004	0.0264	5.6600e-003	0.0321	7.5300e-003	5.2000e-003	0.0127		91.9232	91.9232	7.2000e-004		91.9383
Worker	0.0409	0.0474	0.5710	1.3800e-003	0.1037	9.1000e-004	0.1047	0.0275	8.4000e-004	0.0284		116.2958	116.2958	5.8100e-003		116.4178
Total	**0.0912**	**0.4266**	**1.1769**	**2.3000e-003**	**0.1301**	**6.5700e-003**	**0.1367**	**0.0350**	**6.0400e-003**	**0.0411**		**208.2190**	**208.2190**	**6.5300e-003**		**208.3561**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113		1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**		**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1203	10.6282	7.2935	0.0111		0.6606	0.6606		0.6113	0.6113	0.0000	1,083.5832	1,083.5832	0.2969		1,089.8175
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1203**	**10.6282**	**7.2935**	**0.0111**		**0.6606**	**0.6606**		**0.6113**	**0.6113**	**0.0000**	**1,083.5832**	**1,083.5832**	**0.2969**		**1,089.8175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0669	0.0776	0.9344	2.2600e-003	0.1698	1.5000e-003	0.1712	0.0450	1.3800e-003	0.0464		190.3022	190.3022	9.5100e-003		190.5018
Total	**0.0669**	**0.0776**	**0.9344**	**2.2600e-003**	**0.1698**	**1.5000e-003**	**0.1712**	**0.0450**	**1.3800e-003**	**0.0464**		**190.3022**	**190.3022**	**9.5100e-003**		**190.5018**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**120.5077**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	120.1392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**120.5077**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.4400e-003	8.6200e-003	0.1038	2.5000e-004	0.0189	1.7000e-004	0.0190	5.0000e-003	1.5000e-004	5.1600e-003		21.1447	21.1447	1.0600e-003		21.1669
Total	**7.4400e-003**	**8.6200e-003**	**0.1038**	**2.5000e-004**	**0.0189**	**1.7000e-004**	**0.0190**	**5.0000e-003**	**1.5000e-004**	**5.1600e-003**		**21.1447**	**21.1447**	**1.0600e-003**		**21.1669**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8126	3.4016	18.9446	0.0321	0.9292	0.0743	1.0035	0.2680	0.0743	0.3423		1,663.8347	1,663.8347	0.1603		1,667.2017
Unmitigated	1.8126	3.4016	18.9446	0.0321	0.9292	0.0743	1.0035	0.2680	0.0743	0.3423		1,663.8347	1,663.8347	0.1603		1,667.2017

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	189.99	189.99	189.99	482,496	482,496
Total	189.99	189.99	189.99	482,496	482,496

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065
NaturalGas Unmitigated	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	1928.02	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065
Total		**0.0208**	**0.1890**	**0.1588**	**1.1300e-003**		**0.0144**	**0.0144**		**0.0144**	**0.0144**		**226.8261**	**226.8261**	**4.3500e-003**	**4.1600e-003**	**228.2065**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	1.92802	0.0208	0.1890	0.1588	1.1300e-003		0.0144	0.0144		0.0144	0.0144		226.8261	226.8261	4.3500e-003	4.1600e-003	228.2065
Total		**0.0208**	**0.1890**	**0.1588**	**1.1300e-003**		**0.0144**	**0.0144**		**0.0144**	**0.0144**		**226.8261**	**226.8261**	**4.3500e-003**	**4.1600e-003**	**228.2065**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7197	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003
Unmitigated	0.7197	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003
Total	**0.7197**	**4.0000e-005**	**3.3700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.6700e-003**	**5.6700e-003**	**3.0000e-005**		**6.2300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	3.3700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		5.6700e-003	5.6700e-003	3.0000e-005		6.2300e-003
Total	**0.7197**	**4.0000e-005**	**3.3700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**5.6700e-003**	**5.6700e-003**	**3.0000e-005**		**6.2300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 34

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	113.44	1000sqft	2.60	113,436.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.405 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	263.2936	30.8582	22.1728	0.0353	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,296.331 6	3,296.331 6	0.7523	0.0000	3,312.130 1
2017	263.2540	2.2240	2.3393	4.2300e-003	0.0943	0.1741	0.2684	0.0250	0.1741	0.1991	0.0000	383.1330	383.1330	0.0346	0.0000	383.8595
Total	**526.5476**	**33.0822**	**24.5121**	**0.0395**	**6.7409**	**1.9198**	**8.5830**	**3.4175**	**1.8078**	**5.1261**	**0.0000**	**3,679.464 6**	**3,679.464 6**	**0.7869**	**0.0000**	**3,695.989 6**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	263.2936	30.8582	22.1728	0.0353	6.6466	1.7456	8.3146	3.3925	1.6338	4.9270	0.0000	3,296.331 6	3,296.331 6	0.7523	0.0000	3,312.130 1
2017	263.2540	2.2240	2.3393	4.2300e-003	0.0943	0.1741	0.2684	0.0250	0.1741	0.1991	0.0000	383.1330	383.1330	0.0346	0.0000	383.8595
Total	**526.5476**	**33.0822**	**24.5121**	**0.0395**	**6.7409**	**1.9198**	**8.5830**	**3.4175**	**1.8078**	**5.1261**	**0.0000**	**3,679.464 6**	**3,679.464 6**	**0.7869**	**0.0000**	**3,695.989 6**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1497	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273
Energy	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205
Mobile	8.0138	15.0390	83.7573	0.1421	4.1080	0.3286	4.4366	1.1848	0.3286	1.5135		7,356.0925	7,356.0925	0.7088		7,370.9782
Total	**11.2545**	**15.8664**	**84.4669**	**0.1471**	**4.1080**	**0.3916**	**4.4996**	**1.1848**	**0.3916**	**1.5764**		**8,348.7966**	**8,348.7966**	**0.7280**	**0.0182**	**8,369.7260**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1497	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273
Energy	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205
Mobile	8.0138	15.0390	83.7573	0.1421	4.1080	0.3286	4.4366	1.1848	0.3286	1.5135		7,356.0925	7,356.0925	0.7088		7,370.9782
Total	**11.2545**	**15.8664**	**84.4669**	**0.1471**	**4.1080**	**0.3916**	**4.4996**	**1.1848**	**0.3916**	**1.5764**		**8,348.7966**	**8,348.7966**	**0.7280**	**0.0182**	**8,369.7260**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 170,154; Non-Residential Outdoor: 56,718 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	48.00	19.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328		2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**		**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9066	28.2579	21.4980	0.0245		1.7445	1.7445		1.6328	1.6328	0.0000	2,487.1296	2,487.1296	0.6288		2,500.3343
Total	**2.9066**	**28.2579**	**21.4980**	**0.0245**		**1.7445**	**1.7445**		**1.6328**	**1.6328**	**0.0000**	**2,487.1296**	**2,487.1296**	**0.6288**		**2,500.3343**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0483	0.0560	0.6748	1.6400e-003	0.1226	1.0800e-003	0.1237	0.0325	9.9000e-004	0.0335		137.4405	137.4405	6.8600e-003		137.5847
Total	**0.0483**	**0.0560**	**0.6748**	**1.6400e-003**	**0.1226**	**1.0800e-003**	**0.1237**	**0.0325**	**9.9000e-004**	**0.0335**		**137.4405**	**137.4405**	**6.8600e-003**		**137.5847**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907		2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**		**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.6992	30.8238	18.0600	0.0239		1.5116	1.5116		1.3907	1.3907	0.0000	2,480.1000	2,480.1000	0.7481		2,495.8099
Total	**2.6992**	**30.8238**	**18.0600**	**0.0239**	**1.5908**	**1.5116**	**3.1024**	**0.1718**	**1.3907**	**1.5625**	**0.0000**	**2,480.1000**	**2,480.1000**	**0.7481**		**2,495.8099**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0297	0.0345	0.4153	1.0100e-003	0.0754	6.6000e-004	0.0761	0.0200	6.1000e-004	0.0206		84.5788	84.5788	4.2200e-003		84.6675
Total	**0.0297**	**0.0345**	**0.4153**	**1.0100e-003**	**0.0754**	**6.6000e-004**	**0.0761**	**0.0200**	**6.1000e-004**	**0.0206**		**84.5788**	**84.5788**	**4.2200e-003**		**84.6675**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337		2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**		**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.8530	29.9470	19.6345	0.0206		1.6671	1.6671		1.5337	1.5337	0.0000	2,139.2742	2,139.2742	0.6453		2,152.8251
Total	**2.8530**	**29.9470**	**19.6345**	**0.0206**	**6.5523**	**1.6671**	**8.2195**	**3.3675**	**1.5337**	**4.9012**	**0.0000**	**2,139.2742**	**2,139.2742**	**0.6453**		**2,152.8251**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569		2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**		**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2388	1.8014	2.8777	4.3700e-003	0.1255	0.0269	0.1524	0.0358	0.0247	0.0605		436.6351	436.6351	3.4100e-003		436.7068
Worker	0.1785	0.2068	2.4917	6.0400e-003	0.4527	3.9900e-003	0.4566	0.1201	3.6700e-003	0.1237		507.4726	507.4726	0.0254		508.0049
Total	**0.4173**	**2.0082**	**5.3694**	**0.0104**	**0.5781**	**0.0309**	**0.6090**	**0.1558**	**0.0284**	**0.1842**		**944.1077**	**944.1077**	**0.0288**		**944.7117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6984	24.6320	16.7166	0.0249		1.6257	1.6257		1.5569	1.5569	0.0000	2,352.2239	2,352.2239	0.5420		2,363.6057
Total	**3.6984**	**24.6320**	**16.7166**	**0.0249**		**1.6257**	**1.6257**		**1.5569**	**1.5569**	**0.0000**	**2,352.2239**	**2,352.2239**	**0.5420**		**2,363.6057**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2388	1.8014	2.8777	4.3700e-003	0.1255	0.0269	0.1524	0.0358	0.0247	0.0605		436.6351	436.6351	3.4100e-003		436.7068
Worker	0.1785	0.2068	2.4917	6.0400e-003	0.4527	3.9900e-003	0.4566	0.1201	3.6700e-003	0.1237		507.4726	507.4726	0.0254		508.0049
Total	**0.4173**	**2.0082**	**5.3694**	**0.0104**	**0.5781**	**0.0309**	**0.6090**	**0.1558**	**0.0284**	**0.1842**		**944.1077**	**944.1077**	**0.0288**		**944.7117**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363		1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**		**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7811	17.9300	12.1433	0.0176		1.1252	1.1252		1.0363	1.0363	0.0000	1,804.8600	1,804.8600	0.5344		1,816.0828
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7811**	**17.9300**	**12.1433**	**0.0176**		**1.1252**	**1.1252**		**1.0363**	**1.0363**	**0.0000**	**1,804.8600**	**1,804.8600**	**0.5344**		**1,816.0828**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0558	0.0646	0.7787	1.8900e-003	0.1415	1.2500e-003	0.1427	0.0375	1.1500e-003	0.0387		158.5852	158.5852	7.9200e-003		158.7515
Total	**0.0558**	**0.0646**	**0.7787**	**1.8900e-003**	**0.1415**	**1.2500e-003**	**0.1427**	**0.0375**	**1.1500e-003**	**0.0387**		**158.5852**	**158.5852**	**7.9200e-003**		**158.7515**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.8879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**263.2564**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.8879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**263.2564**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0372	0.0431	0.5191	1.2600e-003	0.0943	8.3000e-004	0.0951	0.0250	7.7000e-004	0.0258		105.7235	105.7235	5.2800e-003		105.8344
Total	**0.0372**	**0.0431**	**0.5191**	**1.2600e-003**	**0.0943**	**8.3000e-004**	**0.0951**	**0.0250**	**7.7000e-004**	**0.0258**		**105.7235**	**105.7235**	**5.2800e-003**		**105.8344**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.8879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**263.2202**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0338	0.0390	0.4712	1.2600e-003	0.0943	8.0000e-004	0.0951	0.0250	7.4000e-004	0.0258		101.6849	101.6849	4.8800e-003		101.7875
Total	**0.0338**	**0.0390**	**0.4712**	**1.2600e-003**	**0.0943**	**8.0000e-004**	**0.0951**	**0.0250**	**7.4000e-004**	**0.0258**		**101.6849**	**101.6849**	**4.8800e-003**		**101.7875**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	262.8879					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**263.2202**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0338	0.0390	0.4712	1.2600e-003	0.0943	8.0000e-004	0.0951	0.0250	7.4000e-004	0.0258		101.6849	101.6849	4.8800e-003		101.7875
Total	**0.0338**	**0.0390**	**0.4712**	**1.2600e-003**	**0.0943**	**8.0000e-004**	**0.0951**	**0.0250**	**7.4000e-004**	**0.0258**		**101.6849**	**101.6849**	**4.8800e-003**		**101.7875**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.0138	15.0390	83.7573	0.1421	4.1080	0.3286	4.4366	1.1848	0.3286	1.5135		7,356.0925	7,356.0925	0.7088		7,370.9782
Unmitigated	8.0138	15.0390	83.7573	0.1421	4.1080	0.3286	4.4366	1.1848	0.3286	1.5135		7,356.0925	7,356.0925	0.7088		7,370.9782

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	839.99	839.99	839.99	2,133,195	2,133,195
Total	839.99	839.99	839.99	2,133,195	2,133,195

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205
NaturalGas Unmitigated	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	8437.77	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205
Total		**0.0910**	**0.8272**	**0.6949**	**4.9600e-003**		**0.0629**	**0.0629**		**0.0629**	**0.0629**		**992.6793**	**992.6793**	**0.0190**	**0.0182**	**998.7205**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	8.43777	0.0910	0.8272	0.6949	4.9600e-003		0.0629	0.0629		0.0629	0.0629		992.6793	992.6793	0.0190	0.0182	998.7205
Total		**0.0910**	**0.8272**	**0.6949**	**4.9600e-003**		**0.0629**	**0.0629**		**0.0629**	**0.0629**		**992.6793**	**992.6793**	**0.0190**	**0.0182**	**998.7205**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1497	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273
Unmitigated	3.1497	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9100e-003	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273
Total	**3.1497**	**1.8000e-004**	**0.0147**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0248**	**0.0248**	**1.2000e-004**		**0.0273**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	2.4275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9100e-003	1.8000e-004	0.0147	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0248	0.0248	1.2000e-004		0.0273
Architectural Coating	0.7202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.1497**	**1.8000e-004**	**0.0147**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0248**	**0.0248**	**1.2000e-004**		**0.0273**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

3. CalEEMod Operational Outputs– Annual (tons per year)

AAU Existing Site 1

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	44.53	1000sqft	1.02	44,530.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study, there are 7.41 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.9067	2.5626	2.0193	2.9800e-003	0.0395	0.1639	0.2034	0.0145	0.1573	0.1717	0.0000	253.8948	253.8948	0.0509	0.0000	254.9645
Total	**0.9067**	**2.5626**	**2.0193**	**2.9800e-003**	**0.0395**	**0.1639**	**0.2034**	**0.0145**	**0.1573**	**0.1717**	**0.0000**	**253.8948**	**253.8948**	**0.0509**	**0.0000**	**254.9645**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.9067	2.5626	2.0193	2.9800e-003	0.0395	0.1639	0.2034	0.0145	0.1573	0.1717	0.0000	253.8945	253.8945	0.0509	0.0000	254.9642
Total	**0.9067**	**2.5626**	**2.0193**	**2.9800e-003**	**0.0395**	**0.1639**	**0.2034**	**0.0145**	**0.1573**	**0.1717**	**0.0000**	**253.8945**	**253.8945**	**0.0509**	**0.0000**	**254.9642**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2257	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003
Energy	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	198.0750	198.0750	7.2800e-003	2.4300e-003	198.9818
Mobile	2.0976	2.6991	24.5713	0.1817	0.2816	0.0316	0.3132	0.0818	0.0316	0.1133	0.0000	439.9402	439.9402	0.1410	0.0000	442.9013
Waste						0.0000	0.0000		0.0000	0.0000	11.7512	0.0000	11.7512	0.6945	0.0000	26.3351
Water						0.0000	0.0000		0.0000	0.0000	0.6929	6.9165	7.6094	0.0715	1.7500e-003	9.6516
Total	**2.3298**	**2.7584**	**24.6225**	**0.1821**	**0.2816**	**0.0361**	**0.3177**	**0.0818**	**0.0361**	**0.1178**	**12.4441**	**644.9325**	**657.3766**	**0.9143**	**4.1800e-003**	**677.8709**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2257	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003
Energy	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	198.0750	198.0750	7.2800e-003	2.4300e-003	198.9818
Mobile	2.0976	2.6991	24.5713	0.1817	0.2816	0.0316	0.3132	0.0818	0.0316	0.1133	0.0000	439.9402	439.9402	0.1410	0.0000	442.9013
Waste						0.0000	0.0000		0.0000	0.0000	11.7512	0.0000	11.7512	0.6945	0.0000	26.3351
Water						0.0000	0.0000		0.0000	0.0000	0.6929	6.9165	7.6094	0.0715	1.7400e-003	9.6505
Total	**2.3298**	**2.7584**	**24.6225**	**0.1821**	**0.2816**	**0.0361**	**0.3177**	**0.0818**	**0.0361**	**0.1178**	**12.4441**	**644.9325**	**657.3766**	**0.9142**	**4.1700e-003**	**677.8698**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.24**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 66,795; Non-Residential Outdoor: 22,265 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0101	0.0691	0.1288	1.6000e-004	4.4700e-003	1.0000e-003	5.4700e-003	1.2800e-003	9.1000e-004	2.2000e-003	0.0000	14.5447	14.5447	1.2000e-004	0.0000	14.5471
Worker	6.8500e-003	9.4000e-003	0.0942	2.3000e-004	0.0172	1.6000e-004	0.0174	4.5800e-003	1.5000e-004	4.7300e-003	0.0000	17.1773	17.1773	9.1000e-004	0.0000	17.1964
Total	**0.0169**	**0.0785**	**0.2230**	**3.9000e-004**	**0.0217**	**1.1600e-003**	**0.0229**	**5.8600e-003**	**1.0600e-003**	**6.9300e-003**	**0.0000**	**31.7220**	**31.7220**	**1.0300e-003**	**0.0000**	**31.7435**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0101	0.0691	0.1288	1.6000e-004	4.4700e-003	1.0000e-003	5.4700e-003	1.2800e-003	9.1000e-004	2.2000e-003	0.0000	14.5447	14.5447	1.2000e-004	0.0000	14.5471
Worker	6.8500e-003	9.4000e-003	0.0942	2.3000e-004	0.0172	1.6000e-004	0.0174	4.5800e-003	1.5000e-004	4.7300e-003	0.0000	17.1773	17.1773	9.1000e-004	0.0000	17.1964
Total	**0.0169**	**0.0785**	**0.2230**	**3.9000e-004**	**0.0217**	**1.1600e-003**	**0.0229**	**5.8600e-003**	**1.0600e-003**	**6.9300e-003**	**0.0000**	**31.7220**	**31.7220**	**1.0300e-003**	**0.0000**	**31.7435**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.5178**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	9.9000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1808	0.1808	1.0000e-005	0.0000	0.1810
Total	**7.0000e-005**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1808**	**0.1808**	**1.0000e-005**	**0.0000**	**0.1810**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5160					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.5178**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.0000e-004	9.9000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1808	0.1808	1.0000e-005	0.0000	0.1810
Total	**7.0000e-005**	**1.0000e-004**	**9.9000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1808**	**0.1808**	**1.0000e-005**	**0.0000**	**0.1810**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0976	2.6991	24.5713	0.1817	0.2816	0.0316	0.3132	0.0818	0.0316	0.1133	0.0000	439.9402	439.9402	0.1410	0.0000	442.9013
Unmitigated	2.0976	2.6991	24.5713	0.1817	0.2816	0.0316	0.3132	0.0818	0.0316	0.1133	0.0000	439.9402	439.9402	0.1410	0.0000	442.9013

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	329.97	329.97	329.97	837,964	837,964
Total	329.97	329.97	329.97	837,964	837,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	133.5587	133.5587	6.0400e-003	1.2500e-003	134.0729
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	133.5587	133.5587	6.0400e-003	1.2500e-003	134.0729
NaturalGas Mitigated	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	64.5163	64.5163	1.2400e-003	1.1800e-003	64.9089
NaturalGas Unmitigated	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	64.5163	64.5163	1.2400e-003	1.1800e-003	64.9089

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.20899e+006	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	64.5163	64.5163	1.2400e-003	1.1800e-003	64.9089
Total		**6.5200e-003**	**0.0593**	**0.0498**	**3.6000e-004**		**4.5000e-003**	**4.5000e-003**		**4.5000e-003**	**4.5000e-003**	**0.0000**	**64.5163**	**64.5163**	**1.2400e-003**	**1.1800e-003**	**64.9089**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.20899e+006	6.5200e-003	0.0593	0.0498	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	64.5163	64.5163	1.2400e-003	1.1800e-003	64.9089
Total		**6.5200e-003**	**0.0593**	**0.0498**	**3.6000e-004**		**4.5000e-003**	**4.5000e-003**		**4.5000e-003**	**4.5000e-003**	**0.0000**	**64.5163**	**64.5163**	**1.2400e-003**	**1.1800e-003**	**64.9089**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	459104	133.5587	6.0400e-003	1.2500e-003	134.0729
Total		**133.5587**	**6.0400e-003**	**1.2500e-003**	**134.0729**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	459104	133.5587	6.0400e-003	1.2500e-003	134.0729
Total		**133.5587**	**6.0400e-003**	**1.2500e-003**	**134.0729**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2257	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003
Unmitigated	0.2257	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003
Total	**0.2257**	**0.0000**	**1.3400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**2.0000e-005**	**0.0000**	**1.1100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	0.0000	1.3400e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-004	8.0000e-004	2.0000e-005	0.0000	1.1100e-003
Total	**0.2257**	**0.0000**	**1.3400e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**8.0000e-004**	**2.0000e-005**	**0.0000**	**1.1100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.6094	0.0715	1.7400e-003	9.6505
Unmitigated	7.6094	0.0715	1.7500e-003	9.6516

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.18415 / 3.41624	7.6094	0.0715	1.7500e-003	9.6516
Total		**7.6094**	**0.0715**	**1.7500e-003**	**9.6516**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.18415 / 3.41624	7.6094	0.0715	1.7400e-003	9.6505
Total		**7.6094**	**0.0715**	**1.7400e-003**	**9.6505**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.7512	0.6945	0.0000	26.3351
Unmitigated	11.7512	0.6945	0.0000	26.3351

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	57.89	11.7512	0.6945	0.0000	26.3351
Total		**11.7512**	**0.6945**	**0.0000**	**26.3351**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	57.89	11.7512	0.6945	0.0000	26.3351
Total		**11.7512**	**0.6945**	**0.0000**	**26.3351**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 2

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.5 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	7.50
tblVehicleTrips	SU_TR	1.21	7.50
tblVehicleTrips	WD_TR	27.49	7.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3171	0.8094	0.5425	7.7000e-004	6.6300e-003	0.0546	0.0613	1.9500e-003	0.0505	0.0524	0.0000	71.2426	71.2426	0.0186	0.0000	71.6327
Total	**0.3171**	**0.8094**	**0.5425**	**7.7000e-004**	**6.6300e-003**	**0.0546**	**0.0613**	**1.9500e-003**	**0.0505**	**0.0524**	**0.0000**	**71.2426**	**71.2426**	**0.0186**	**0.0000**	**71.6327**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3171	0.8094	0.5425	7.7000e-004	6.6300e-003	0.0546	0.0613	1.9500e-003	0.0505	0.0524	0.0000	71.2425	71.2425	0.0186	0.0000	71.6326
Total	**0.3171**	**0.8094**	**0.5425**	**7.7000e-004**	**6.6300e-003**	**0.0546**	**0.0613**	**1.9500e-003**	**0.0505**	**0.0524**	**0.0000**	**71.2425**	**71.2425**	**0.0186**	**0.0000**	**71.6326**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1013	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004
Energy	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	88.9625	88.9625	3.2700e-003	1.0900e-003	89.3698
Mobile	0.4366	0.7693	4.7631	5.4600e-003	0.1280	0.0113	0.1393	0.0372	0.0113	0.0485	0.0000	205.1287	205.1287	0.0344	0.0000	205.8508
Waste						0.0000	0.0000		0.0000	0.0000	5.2778	0.0000	5.2778	0.3119	0.0000	11.8278
Water						0.0000	0.0000		0.0000	0.0000	0.3112	3.1065	3.4177	0.0321	7.8000e-004	4.3349
Total	**0.5409**	**0.7959**	**4.7858**	**5.6200e-003**	**0.1280**	**0.0133**	**0.1413**	**0.0372**	**0.0133**	**0.0505**	**5.5890**	**297.1980**	**302.7870**	**0.3817**	**1.8700e-003**	**311.3837**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1013	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004
Energy	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	88.9625	88.9625	3.2700e-003	1.0900e-003	89.3698
Mobile	0.4366	0.7693	4.7631	5.4600e-003	0.1280	0.0113	0.1393	0.0372	0.0113	0.0485	0.0000	205.1287	205.1287	0.0344	0.0000	205.8508
Waste						0.0000	0.0000		0.0000	0.0000	5.2778	0.0000	5.2778	0.3119	0.0000	11.8278
Water						0.0000	0.0000		0.0000	0.0000	0.3112	3.1065	3.4177	0.0321	7.8000e-004	4.3344
Total	**0.5409**	**0.7959**	**4.7858**	**5.6200e-003**	**0.1280**	**0.0133**	**0.1413**	**0.0372**	**0.0133**	**0.0505**	**5.5890**	**297.1980**	**302.7870**	**0.3817**	**1.8700e-003**	**311.3832**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1500e-003	0.0148	0.0276	3.0000e-005	9.6000e-004	2.1000e-004	1.1700e-003	2.7000e-004	2.0000e-004	4.7000e-004	0.0000	3.1167	3.1167	2.0000e-005	0.0000	3.1172
Worker	1.4400e-003	1.9800e-003	0.0198	5.0000e-005	3.6300e-003	3.0000e-005	3.6600e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	3.6163	3.6163	1.9000e-004	0.0000	3.6203
Total	**3.5900e-003**	**0.0168**	**0.0474**	**8.0000e-005**	**4.5900e-003**	**2.4000e-004**	**4.8300e-003**	**1.2400e-003**	**2.3000e-004**	**1.4700e-003**	**0.0000**	**6.7330**	**6.7330**	**2.1000e-004**	**0.0000**	**6.7375**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1500e-003	0.0148	0.0276	3.0000e-005	9.6000e-004	2.1000e-004	1.1700e-003	2.7000e-004	2.0000e-004	4.7000e-004	0.0000	3.1167	3.1167	2.0000e-005	0.0000	3.1172
Worker	1.4400e-003	1.9800e-003	0.0198	5.0000e-005	3.6300e-003	3.0000e-005	3.6600e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	3.6163	3.6163	1.9000e-004	0.0000	3.6203
Total	**3.5900e-003**	**0.0168**	**0.0474**	**8.0000e-005**	**4.5900e-003**	**2.4000e-004**	**4.8300e-003**	**1.2400e-003**	**2.3000e-004**	**1.4700e-003**	**0.0000**	**6.7330**	**6.7330**	**2.1000e-004**	**0.0000**	**6.7375**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2327**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2327**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4366	0.7693	4.7631	5.4600e-003	0.1280	0.0113	0.1393	0.0372	0.0113	0.0485	0.0000	205.1287	205.1287	0.0344	0.0000	205.8508
Unmitigated	0.4366	0.7693	4.7631	5.4600e-003	0.1280	0.0113	0.1393	0.0372	0.0113	0.0485	0.0000	205.1287	205.1287	0.0344	0.0000	205.8508

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	150.00	150.00	150.00	380,931	380,931
Total	150.00	150.00	150.00	380,931	380,931

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	59.9859	59.9859	2.7100e-003	5.6000e-004	60.2169
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	59.9859	59.9859	2.7100e-003	5.6000e-004	60.2169
NaturalGas Mitigated	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	28.9766	28.9766	5.6000e-004	5.3000e-004	29.1529
NaturalGas Unmitigated	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	28.9766	28.9766	5.6000e-004	5.3000e-004	29.1529

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	543000	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	28.9766	28.9766	5.6000e-004	5.3000e-004	29.1529
Total		**2.9300e-003**	**0.0266**	**0.0224**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**	**0.0000**	**28.9766**	**28.9766**	**5.6000e-004**	**5.3000e-004**	**29.1529**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	543000	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	28.9766	28.9766	5.6000e-004	5.3000e-004	29.1529
Total		**2.9300e-003**	**0.0266**	**0.0224**	**1.6000e-004**		**2.0200e-003**	**2.0200e-003**		**2.0200e-003**	**2.0200e-003**	**0.0000**	**28.9766**	**28.9766**	**5.6000e-004**	**5.3000e-004**	**29.1529**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	206200	59.9859	2.7100e-003	5.6000e-004	60.2169
Total		**59.9859**	**2.7100e-003**	**5.6000e-004**	**60.2169**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	206200	59.9859	2.7100e-003	5.6000e-004	60.2169
Total		**59.9859**	**2.7100e-003**	**5.6000e-004**	**60.2169**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1013	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004
Unmitigated	0.1013	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0781					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004
Total	**0.1013**	**0.0000**	**3.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.6000e-004**	**3.6000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0781					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	4.1000e-004
Total	**0.1013**	**0.0000**	**3.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.6000e-004**	**3.6000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4177	0.0321	7.8000e-004	4.3344
Unmitigated	3.4177	0.0321	7.8000e-004	4.3349

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.980981 / 1.53435	3.4177	0.0321	7.8000e-004	4.3349
Total		**3.4177**	**0.0321**	**7.8000e-004**	**4.3349**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.980981 / 1.53435	3.4177	0.0321	7.8000e-004	4.3344
Total		**3.4177**	**0.0321**	**7.8000e-004**	**4.3344**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2778	0.3119	0.0000	11.8278
Unmitigated	5.2778	0.3119	0.0000	11.8278

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	26	5.2778	0.3119	0.0000	11.8278
Total		**5.2778**	**0.3119**	**0.0000**	**11.8278**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	26	5.2778	0.3119	0.0000	11.8278
Total		**5.2778**	**0.3119**	**0.0000**	**11.8278**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 3

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	52.00	Dwelling Unit	1.37	52,000.00	81

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	35,100.00	11,050.00
tblArchitecturalCoating	ConstArea_Residential_Interior	105,300.00	33,151.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	200.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	28.60	0.00
tblFireplaces	NumberNoFireplace	16.12	0.00
tblFireplaces	NumberWood	7.28	0.00
tblLandUse	Population	149.00	81.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblProjectCharacteristics	OperationalYear	2014	2005
tblSolidWaste	SolidWasteGenerationRate	23.92	7.53
tblTripsAndVMT	VendorTripNumber	6.00	2.00
tblTripsAndVMT	WorkerTripNumber	37.00	12.00
tblTripsAndVMT	WorkerTripNumber	7.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	3,388,009.33	1,066,571.40
tblWater	OutdoorWaterUseRate	2,135,918.93	672,403.71
tblWoodstoves	NumberCatalytic	0.26	0.00
tblWoodstoves	NumberNoncatalytic	0.26	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3415	0.8054	0.5432	7.9000e-004	8.1200e-003	0.0546	0.0627	2.3400e-003	0.0504	0.0528	0.0000	72.0118	72.0118	0.0187	0.0000	72.4038
Total	**0.3415**	**0.8054**	**0.5432**	**7.9000e-004**	**8.1200e-003**	**0.0546**	**0.0627**	**2.3400e-003**	**0.0504**	**0.0528**	**0.0000**	**72.0118**	**72.0118**	**0.0187**	**0.0000**	**72.4038**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3415	0.8054	0.5432	7.9000e-004	8.1200e-003	0.0546	0.0627	2.3400e-003	0.0504	0.0528	0.0000	72.0117	72.0117	0.0187	0.0000	72.4037
Total	**0.3415**	**0.8054**	**0.5432**	**7.9000e-004**	**8.1200e-003**	**0.0546**	**0.0627**	**2.3400e-003**	**0.0504**	**0.0528**	**0.0000**	**72.0117**	**72.0117**	**0.0187**	**0.0000**	**72.4037**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3038	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519
Energy	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	73.0899	73.0899	2.7900e-003	8.6000e-004	73.4150
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.5285	0.0000	1.5285	0.0903	0.0000	3.4255
Water						0.0000	0.0000		0.0000	0.0000	0.3384	2.3636	2.7019	0.0349	8.4000e-004	3.6953
Total	**0.3058**	**0.0230**	**0.4550**	**1.3000e-004**	**0.0000**	**3.2600e-003**	**3.2600e-003**	**0.0000**	**3.2600e-003**	**3.2600e-003**	**1.8669**	**76.0841**	**77.9510**	**0.1290**	**1.7000e-003**	**81.1877**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3038	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519
Energy	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	73.0899	73.0899	2.7900e-003	8.6000e-004	73.4150
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.5285	0.0000	1.5285	0.0903	0.0000	3.4255
Water						0.0000	0.0000		0.0000	0.0000	0.3384	2.3636	2.7019	0.0349	8.4000e-004	3.6947
Total	**0.3058**	**0.0230**	**0.4550**	**1.3000e-004**	**0.0000**	**3.2600e-003**	**3.2600e-003**	**0.0000**	**3.2600e-003**	**3.2600e-003**	**1.8669**	**76.0841**	**77.9510**	**0.1290**	**1.7000e-003**	**81.1872**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 33,151; Residential Outdoor: 11,050; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	2.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	9.8700e-003	0.0184	2.0000e-005	6.4000e-004	1.4000e-004	7.8000e-004	1.8000e-004	1.3000e-004	3.1000e-004	0.0000	2.0778	2.0778	2.0000e-005	0.0000	2.0782
Worker	2.1600e-003	2.9700e-003	0.0298	7.0000e-005	5.4400e-003	5.0000e-005	5.4900e-003	1.4500e-003	5.0000e-005	1.4900e-003	0.0000	5.4244	5.4244	2.9000e-004	0.0000	5.4304
Total	**3.6000e-003**	**0.0128**	**0.0482**	**9.0000e-005**	**6.0800e-003**	**1.9000e-004**	**6.2700e-003**	**1.6300e-003**	**1.8000e-004**	**1.8000e-003**	**0.0000**	**7.5022**	**7.5022**	**3.1000e-004**	**0.0000**	**7.5086**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	9.8700e-003	0.0184	2.0000e-005	6.4000e-004	1.4000e-004	7.8000e-004	1.8000e-004	1.3000e-004	3.1000e-004	0.0000	2.0778	2.0778	2.0000e-005	0.0000	2.0782
Worker	2.1600e-003	2.9700e-003	0.0298	7.0000e-005	5.4400e-003	5.0000e-005	5.4900e-003	1.4500e-003	5.0000e-005	1.4900e-003	0.0000	5.4244	5.4244	2.9000e-004	0.0000	5.4304
Total	**3.6000e-003**	**0.0128**	**0.0482**	**9.0000e-005**	**6.0800e-003**	**1.9000e-004**	**6.2700e-003**	**1.6300e-003**	**1.8000e-004**	**1.8000e-003**	**0.0000**	**7.5022**	**7.5022**	**3.1000e-004**	**0.0000**	**7.5086**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2570**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2570**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	53.5107	53.5107	2.4200e-003	5.0000e-004	53.7167
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	53.5107	53.5107	2.4200e-003	5.0000e-004	53.7167
NaturalGas Mitigated	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.5791	19.5791	3.8000e-004	3.6000e-004	19.6983
NaturalGas Unmitigated	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.5791	19.5791	3.8000e-004	3.6000e-004	19.6983

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	366899	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.5791	19.5791	3.8000e-004	3.6000e-004	19.6983
Total		**1.9800e-003**	**0.0169**	**7.1900e-003**	**1.1000e-004**		**1.3700e-003**	**1.3700e-003**		**1.3700e-003**	**1.3700e-003**	**0.0000**	**19.5791**	**19.5791**	**3.8000e-004**	**3.6000e-004**	**19.6983**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	366899	1.9800e-003	0.0169	7.1900e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.5791	19.5791	3.8000e-004	3.6000e-004	19.6983
Total		**1.9800e-003**	**0.0169**	**7.1900e-003**	**1.1000e-004**		**1.3700e-003**	**1.3700e-003**		**1.3700e-003**	**1.3700e-003**	**0.0000**	**19.5791**	**19.5791**	**3.8000e-004**	**3.6000e-004**	**19.6983**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	183942	53.5107	2.4200e-003	5.0000e-004	53.7167
Total		**53.5107**	**2.4200e-003**	**5.0000e-004**	**53.7167**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	183942	53.5107	2.4200e-003	5.0000e-004	53.7167
Total		**53.5107**	**2.4200e-003**	**5.0000e-004**	**53.7167**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3038	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519
Unmitigated	0.3038	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0813					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0194	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519
Total	**0.3038**	**6.0900e-003**	**0.4478**	**2.0000e-005**		**1.8900e-003**	**1.8900e-003**		**1.8900e-003**	**1.8900e-003**	**0.0000**	**0.6307**	**0.6307**	**1.0100e-003**	**0.0000**	**0.6519**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0813					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0194	6.0900e-003	0.4478	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.6307	0.6307	1.0100e-003	0.0000	0.6519
Total	**0.3038**	**6.0900e-003**	**0.4478**	**2.0000e-005**		**1.8900e-003**	**1.8900e-003**		**1.8900e-003**	**1.8900e-003**	**0.0000**	**0.6307**	**0.6307**	**1.0100e-003**	**0.0000**	**0.6519**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.7019	0.0349	8.4000e-004	3.6947
Unmitigated	2.7019	0.0349	8.4000e-004	3.6953

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.06657 / 0.672404	2.7019	0.0349	8.4000e-004	3.6953
Total		**2.7019**	**0.0349**	**8.4000e-004**	**3.6953**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.06657 / 0.672404	2.7019	0.0349	8.4000e-004	3.6947
Total		**2.7019**	**0.0349**	**8.4000e-004**	**3.6947**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.5285	0.0903	0.0000	3.4255
Unmitigated	1.5285	0.0903	0.0000	3.4255

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	7.53	1.5285	0.0903	0.0000	3.4255
Total		**1.5285**	**0.0903**	**0.0000**	**3.4255**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	7.53	1.5285	0.0903	0.0000	3.4255
Total		**1.5285**	**0.0903**	**0.0000**	**3.4255**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 4

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	3.00	Dwelling Unit	0.08	3,000.00	20

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1. 1/29/16

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,025.00	3,426.00
tblArchitecturalCoating	ConstArea_Residential_Interior	6,075.00	10,279.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Residential_Exterior	2025	2700
tblAreaCoating	Area_Residential_Interior	6075	8100
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	1.65	0.00
tblFireplaces	NumberNoFireplace	0.93	0.00
tblFireplaces	NumberWood	0.42	0.00
tblLandUse	Population	9.00	20.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblSolidWaste	SolidWasteGenerationRate	1.38	2.34
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	2.00	4.00
tblTripsAndVMT	WorkerTripNumber	0.00	1.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	195,462.08	330,982.45
tblWater	OutdoorWaterUseRate	123,226.09	208,662.85
tblWoodstoves	NumberCatalytic	0.02	0.00
tblWoodstoves	NumberNoncatalytic	0.02	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1626	0.7985	0.5140	7.3000e-004	4.1500e-003	0.0545	0.0586	1.2800e-003	0.0503	0.0516	0.0000	67.3340	67.3340	0.0185	0.0000	67.7218
Total	**0.1626**	**0.7985**	**0.5140**	**7.3000e-004**	**4.1500e-003**	**0.0545**	**0.0586**	**1.2800e-003**	**0.0503**	**0.0516**	**0.0000**	**67.3340**	**67.3340**	**0.0185**	**0.0000**	**67.7218**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1626	0.7985	0.5140	7.3000e-004	4.1500e-003	0.0545	0.0586	1.2800e-003	0.0503	0.0516	0.0000	67.3340	67.3340	0.0185	0.0000	67.7217
Total	**0.1626**	**0.7985**	**0.5140**	**7.3000e-004**	**4.1500e-003**	**0.0545**	**0.0586**	**1.2800e-003**	**0.0503**	**0.0516**	**0.0000**	**67.3340**	**67.3340**	**0.0185**	**0.0000**	**67.7217**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0191	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376
Energy	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.2167	4.2167	1.6000e-004	5.0000e-005	4.2355
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.4750	0.0000	0.4750	0.0281	0.0000	1.0645
Water						0.0000	0.0000		0.0000	0.0000	0.1050	0.7335	0.8385	0.0108	2.6000e-004	1.1467
Total	**0.0192**	**1.3300e-003**	**0.0263**	**1.0000e-005**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.5800**	**4.9866**	**5.5666**	**0.0391**	**3.1000e-004**	**6.4843**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0191	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376
Energy	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.2167	4.2167	1.6000e-004	5.0000e-005	4.2355
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.4750	0.0000	0.4750	0.0281	0.0000	1.0645
Water						0.0000	0.0000		0.0000	0.0000	0.1050	0.7335	0.8385	0.0108	2.6000e-004	1.1466
Total	**0.0192**	**1.3300e-003**	**0.0263**	**1.0000e-005**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.5800**	**4.9866**	**5.5666**	**0.0391**	**3.1000e-004**	**6.4842**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 10,279; Residential Outdoor: 3,426; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	7.2000e-004	9.9000e-004	9.9200e-003	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	2.0000e-005	5.0000e-004	0.0000	1.8081	1.8081	1.0000e-004	0.0000	1.8102
Total	**1.4400e-003**	**5.9200e-003**	**0.0191**	**3.0000e-005**	**2.1300e-003**	**9.0000e-005**	**2.2200e-003**	**5.7000e-004**	**9.0000e-005**	**6.6000e-004**	**0.0000**	**2.8470**	**2.8470**	**1.1000e-004**	**0.0000**	**2.8492**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	7.2000e-004	9.9000e-004	9.9200e-003	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	2.0000e-005	5.0000e-004	0.0000	1.8081	1.8081	1.0000e-004	0.0000	1.8102
Total	**1.4400e-003**	**5.9200e-003**	**0.0191**	**3.0000e-005**	**2.1300e-003**	**9.0000e-005**	**2.2200e-003**	**5.7000e-004**	**9.0000e-005**	**6.6000e-004**	**0.0000**	**2.8470**	**2.8470**	**1.1000e-004**	**0.0000**	**2.8492**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.0803**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.0803**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.0872	3.0872	1.4000e-004	3.0000e-005	3.0990
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.0872	3.0872	1.4000e-004	3.0000e-005	3.0990
NaturalGas Mitigated	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1296	1.1296	2.0000e-005	2.0000e-005	1.1364
NaturalGas Unmitigated	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1296	1.1296	2.0000e-005	2.0000e-005	1.1364

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	21167.3	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1296	1.1296	2.0000e-005	2.0000e-005	1.1364
Total		**1.1000e-004**	**9.8000e-004**	**4.2000e-004**	**1.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**1.1296**	**1.1296**	**2.0000e-005**	**2.0000e-005**	**1.1364**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	21167.3	1.1000e-004	9.8000e-004	4.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1296	1.1296	2.0000e-005	2.0000e-005	1.1364
Total		**1.1000e-004**	**9.8000e-004**	**4.2000e-004**	**1.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**1.1296**	**1.1296**	**2.0000e-005**	**2.0000e-005**	**1.1364**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	10612	3.0872	1.4000e-004	3.0000e-005	3.0990
Total		**3.0872**	**1.4000e-004**	**3.0000e-005**	**3.0990**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	10612	3.0872	1.4000e-004	3.0000e-005	3.0990
Total		**3.0872**	**1.4000e-004**	**3.0000e-005**	**3.0990**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0191	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376
Unmitigated	0.0191	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376
Total	**0.0191**	**3.5000e-004**	**0.0258**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0364**	**0.0364**	**6.0000e-005**	**0.0000**	**0.0376**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.2600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1200e-003	3.5000e-004	0.0258	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0364	0.0364	6.0000e-005	0.0000	0.0376
Total	**0.0191**	**3.5000e-004**	**0.0258**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0364**	**0.0364**	**6.0000e-005**	**0.0000**	**0.0376**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8385	0.0108	2.6000e-004	1.1466
Unmitigated	0.8385	0.0108	2.6000e-004	1.1467

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.330982 / 0.208663	0.8385	0.0108	2.6000e-004	1.1467
Total		**0.8385**	**0.0108**	**2.6000e-004**	**1.1467**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.330982 / 0.208663	0.8385	0.0108	2.6000e-004	1.1466
Total		**0.8385**	**0.0108**	**2.6000e-004**	**1.1466**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4750	0.0281	0.0000	1.0645
Unmitigated	0.4750	0.0281	0.0000	1.0645

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2.34	0.4750	0.0281	0.0000	1.0645
Total		**0.4750**	**0.0281**	**0.0000**	**1.0645**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	2.34	0.4750	0.0281	0.0000	1.0645
Total		**0.4750**	**0.0281**	**0.0000**	**1.0645**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 5

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	22.00	Dwelling Unit	0.58	22,000.00	56

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1. 1/29/2016

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fire places or wood stoves.

Area Coating -

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	14,850.00	8,030.00
tblArchitecturalCoating	ConstArea_Residential_Interior	44,550.00	24,091.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Residential_Exterior	14850	12150
tblAreaCoating	Area_Residential_Interior	44550	36450
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	12.10	0.00
tblFireplaces	NumberNoFireplace	6.82	0.00
tblFireplaces	NumberWood	3.08	0.00
tblLandUse	Population	63.00	56.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	10.12	5.47
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	16.00	9.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	1,433,388.56	775,332.90
tblWater	OutdoorWaterUseRate	903,658.01	488,796.83
tblWoodstoves	NumberCatalytic	0.11	0.00
tblWoodstoves	NumberNoncatalytic	0.11	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2702	0.7998	0.5265	7.6000e-004	6.4400e-003	0.0545	0.0609	1.8900e-003	0.0504	0.0522	0.0000	69.6168	69.6168	0.0186	0.0000	70.0071
Total	**0.2702**	**0.7998**	**0.5265**	**7.6000e-004**	**6.4400e-003**	**0.0545**	**0.0609**	**1.8900e-003**	**0.0504**	**0.0522**	**0.0000**	**69.6168**	**69.6168**	**0.0186**	**0.0000**	**70.0071**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2702	0.7998	0.5265	7.6000e-004	6.4400e-003	0.0545	0.0609	1.8900e-003	0.0504	0.0522	0.0000	69.6167	69.6167	0.0186	0.0000	70.0070
Total	**0.2702**	**0.7998**	**0.5265**	**7.6000e-004**	**6.4400e-003**	**0.0545**	**0.0609**	**1.8900e-003**	**0.0504**	**0.0522**	**0.0000**	**69.6167**	**69.6167**	**0.0186**	**0.0000**	**70.0070**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1331	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066
Energy	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	30.9226	30.9226	1.1800e-003	3.6000e-004	31.0602
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.1104	0.0000	1.1104	0.0656	0.0000	2.4884
Water						0.0000	0.0000		0.0000	0.0000	0.2460	1.7182	1.9641	0.0253	6.1000e-004	2.6862
Total	**0.1340**	**9.6400e-003**	**0.3714**	**1.8000e-004**	**0.0000**	**9.9000e-004**	**9.9000e-004**	**0.0000**	**9.9000e-004**	**9.9000e-004**	**1.3563**	**32.9076**	**34.2640**	**0.0940**	**9.7000e-004**	**36.5414**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1331	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066
Energy	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	30.9226	30.9226	1.1800e-003	3.6000e-004	31.0602
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.1104	0.0000	1.1104	0.0656	0.0000	2.4884
Water						0.0000	0.0000		0.0000	0.0000	0.2460	1.7182	1.9641	0.0253	6.1000e-004	2.6858
Total	**0.1340**	**9.6400e-003**	**0.3714**	**1.8000e-004**	**0.0000**	**9.9000e-004**	**9.9000e-004**	**0.0000**	**9.9000e-004**	**9.9000e-004**	**1.3563**	**32.9076**	**34.2640**	**0.0940**	**9.7000e-004**	**36.5410**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 24,091; Residential Outdoor: 8,030; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.6200e-003	2.2300e-003	0.0223	5.0000e-005	4.0800e-003	4.0000e-005	4.1200e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	4.0683	4.0683	2.2000e-004	0.0000	4.0728
Total	**2.3400e-003**	**7.1600e-003**	**0.0315**	**6.0000e-005**	**4.4000e-003**	**1.1000e-004**	**4.5100e-003**	**1.1800e-003**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**5.1072**	**5.1072**	**2.3000e-004**	**0.0000**	**5.1119**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.6200e-003	2.2300e-003	0.0223	5.0000e-005	4.0800e-003	4.0000e-005	4.1200e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	4.0683	4.0683	2.2000e-004	0.0000	4.0728
Total	**2.3400e-003**	**7.1600e-003**	**0.0315**	**6.0000e-005**	**4.4000e-003**	**1.1000e-004**	**4.5100e-003**	**1.1800e-003**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**5.1072**	**5.1072**	**2.3000e-004**	**0.0000**	**5.1119**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.1870**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.1870**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	22.6392	22.6392	1.0200e-003	2.1000e-004	22.7263
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	22.6392	22.6392	1.0200e-003	2.1000e-004	22.7263
NaturalGas Mitigated	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2835	8.2835	1.6000e-004	1.5000e-004	8.3339
NaturalGas Unmitigated	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2835	8.2835	1.6000e-004	1.5000e-004	8.3339

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	155227	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2835	8.2835	1.6000e-004	1.5000e-004	8.3339
Total		**8.4000e-004**	**7.1500e-003**	**3.0400e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**8.2835**	**8.2835**	**1.6000e-004**	**1.5000e-004**	**8.3339**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	155227	8.4000e-004	7.1500e-003	3.0400e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	8.2835	8.2835	1.6000e-004	1.5000e-004	8.3339
Total		**8.4000e-004**	**7.1500e-003**	**3.0400e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**8.2835**	**8.2835**	**1.6000e-004**	**1.5000e-004**	**8.3339**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	77821.5	22.6392	1.0200e-003	2.1000e-004	22.7263
Total		**22.6392**	**1.0200e-003**	**2.1000e-004**	**22.7263**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	77821.5	22.6392	1.0200e-003	2.1000e-004	22.7263
Total		**22.6392**	**1.0200e-003**	**2.1000e-004**	**22.7263**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1331	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066
Unmitigated	0.1331	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0191	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066
Total	**0.1331**	**2.4900e-003**	**0.3683**	**1.3000e-004**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2668**	**0.2668**	**1.8900e-003**	**0.0000**	**0.3066**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0859					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0191	2.4900e-003	0.3683	1.3000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	0.2668	0.2668	1.8900e-003	0.0000	0.3066
Total	**0.1331**	**2.4900e-003**	**0.3683**	**1.3000e-004**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.2668**	**0.2668**	**1.8900e-003**	**0.0000**	**0.3066**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.9641	0.0253	6.1000e-004	2.6858
Unmitigated	1.9641	0.0253	6.1000e-004	2.6862

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.775333 / 0.488797	1.9641	0.0253	6.1000e-004	2.6862
Total		**1.9641**	**0.0253**	**6.1000e-004**	**2.6862**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.775333 / 0.488797	1.9641	0.0253	6.1000e-004	2.6858
Total		**1.9641**	**0.0253**	**6.1000e-004**	**2.6858**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1104	0.0656	0.0000	2.4884
Unmitigated	1.1104	0.0656	0.0000	2.4884

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.47	1.1104	0.0656	0.0000	2.4884
Total		**1.1104**	**0.0656**	**0.0000**	**2.4884**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	5.47	1.1104	0.0656	0.0000	2.4884
Total		**1.1104**	**0.0656**	**0.0000**	**2.4884**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 6

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	27.91	1000sqft	0.64	27,912.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.52 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 4/19/16 adjustment to trip rates due to updated information.

Energy Use - adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblLandUse	LandUseSquareFeet	27,910.00	27,912.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	6.40
tblVehicleTrips	SU_TR	1.21	6.40
tblVehicleTrips	WD_TR	27.49	6.40

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4109	0.8202	0.5708	8.2000e-004	9.0800e-003	0.0548	0.0639	2.6200e-003	0.0506	0.0532	0.0000	75.1285	75.1285	0.0187	0.0000	75.5210
Total	**0.4109**	**0.8202**	**0.5708**	**8.2000e-004**	**9.0800e-003**	**0.0548**	**0.0639**	**2.6200e-003**	**0.0506**	**0.0532**	**0.0000**	**75.1285**	**75.1285**	**0.0187**	**0.0000**	**75.5210**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4109	0.8202	0.5708	8.2000e-004	9.0800e-003	0.0548	0.0639	2.6200e-003	0.0506	0.0532	0.0000	75.1285	75.1285	0.0187	0.0000	75.5209
Total	**0.4109**	**0.8202**	**0.5708**	**8.2000e-004**	**9.0800e-003**	**0.0548**	**0.0639**	**2.6200e-003**	**0.0506**	**0.0532**	**0.0000**	**75.1285**	**75.1285**	**0.0187**	**0.0000**	**75.5209**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1414	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004
Energy	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	124.1561	124.1561	4.5600e-003	1.5200e-003	124.7245
Mobile	0.2989	0.5988	3.2532	5.2900e-003	0.1524	0.0127	0.1651	0.0442	0.0127	0.0570	0.0000	238.8880	238.8880	0.0232	0.0000	239.3755
Waste						0.0000	0.0000		0.0000	0.0000	7.3645	0.0000	7.3645	0.4352	0.0000	16.5044
Water						0.0000	0.0000		0.0000	0.0000	0.4343	4.3351	4.7694	0.0448	1.0900e-003	6.0493
Total	**0.4444**	**0.6359**	**3.2847**	**5.5100e-003**	**0.1524**	**0.0155**	**0.1679**	**0.0442**	**0.0155**	**0.0598**	**7.7988**	**367.3796**	**375.1784**	**0.5078**	**2.6100e-003**	**386.6542**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1414	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004
Energy	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	124.1561	124.1561	4.5600e-003	1.5200e-003	124.7245
Mobile	0.2989	0.5988	3.2532	5.2900e-003	0.1524	0.0127	0.1651	0.0442	0.0127	0.0570	0.0000	238.8880	238.8880	0.0232	0.0000	239.3755
Waste						0.0000	0.0000		0.0000	0.0000	7.3645	0.0000	7.3645	0.4352	0.0000	16.5044
Water						0.0000	0.0000		0.0000	0.0000	0.4343	4.3351	4.7694	0.0448	1.0900e-003	6.0486
Total	**0.4444**	**0.6359**	**3.2847**	**5.5100e-003**	**0.1524**	**0.0155**	**0.1679**	**0.0442**	**0.0155**	**0.0598**	**7.7988**	**367.3796**	**375.1784**	**0.5078**	**2.6100e-003**	**386.6535**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 41,868; Non-Residential Outdoor: 13,956 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	5.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5900e-003	0.0247	0.0460	6.0000e-005	1.6000e-003	3.6000e-004	1.9500e-003	4.6000e-004	3.3000e-004	7.8000e-004	0.0000	5.1945	5.1945	4.0000e-005	0.0000	5.1954
Worker	2.1600e-003	2.9700e-003	0.0298	7.0000e-005	5.4400e-003	5.0000e-005	5.4900e-003	1.4500e-003	5.0000e-005	1.4900e-003	0.0000	5.4244	5.4244	2.9000e-004	0.0000	5.4304
Total	**5.7500e-003**	**0.0276**	**0.0757**	**1.3000e-004**	**7.0400e-003**	**4.1000e-004**	**7.4400e-003**	**1.9100e-003**	**3.8000e-004**	**2.2700e-003**	**0.0000**	**10.6189**	**10.6189**	**3.3000e-004**	**0.0000**	**10.6258**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5900e-003	0.0247	0.0460	6.0000e-005	1.6000e-003	3.6000e-004	1.9500e-003	4.6000e-004	3.3000e-004	7.8000e-004	0.0000	5.1945	5.1945	4.0000e-005	0.0000	5.1954
Worker	2.1600e-003	2.9700e-003	0.0298	7.0000e-005	5.4400e-003	5.0000e-005	5.4900e-003	1.4500e-003	5.0000e-005	1.4900e-003	0.0000	5.4244	5.4244	2.9000e-004	0.0000	5.4304
Total	**5.7500e-003**	**0.0276**	**0.0757**	**1.3000e-004**	**7.0400e-003**	**4.1000e-004**	**7.4400e-003**	**1.9100e-003**	**3.8000e-004**	**2.2700e-003**	**0.0000**	**10.6189**	**10.6189**	**3.3000e-004**	**0.0000**	**10.6258**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3244**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3244**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2989	0.5988	3.2532	5.2900e-003	0.1524	0.0127	0.1651	0.0442	0.0127	0.0570	0.0000	238.8880	238.8880	0.0232	0.0000	239.3755
Unmitigated	0.2989	0.5988	3.2532	5.2900e-003	0.1524	0.0127	0.1651	0.0442	0.0127	0.0570	0.0000	238.8880	238.8880	0.0232	0.0000	239.3755

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	178.62	178.62	178.62	453,622	453,622
Total	178.62	178.62	178.62	453,622	453,622

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	83.7164	83.7164	3.7900e-003	7.8000e-004	84.0387
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	83.7164	83.7164	3.7900e-003	7.8000e-004	84.0387
NaturalGas Mitigated	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.4397	40.4397	7.8000e-004	7.4000e-004	40.6858
NaturalGas Unmitigated	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.4397	40.4397	7.8000e-004	7.4000e-004	40.6858

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	757811	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.4397	40.4397	7.8000e-004	7.4000e-004	40.6858
Total		**4.0900e-003**	**0.0372**	**0.0312**	**2.2000e-004**		**2.8200e-003**	**2.8200e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**40.4397**	**40.4397**	**7.8000e-004**	**7.4000e-004**	**40.6858**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	757811	4.0900e-003	0.0372	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.4397	40.4397	7.8000e-004	7.4000e-004	40.6858
Total		**4.0900e-003**	**0.0372**	**0.0312**	**2.2000e-004**		**2.8200e-003**	**2.8200e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**40.4397**	**40.4397**	**7.8000e-004**	**7.4000e-004**	**40.6858**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	287773	83.7164	3.7900e-003	7.8000e-004	84.0387
Total		**83.7164**	**3.7900e-003**	**7.8000e-004**	**84.0387**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	287773	83.7164	3.7900e-003	7.8000e-004	84.0387
Total		**83.7164**	**3.7900e-003**	**7.8000e-004**	**84.0387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1414	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004
Unmitigated	0.1414	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0323					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004
Total	**0.1414**	**0.0000**	**3.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.5000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0323					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1090					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.5000e-004
Total	**0.1414**	**0.0000**	**3.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7694	0.0448	1.0900e-003	6.0486
Unmitigated	4.7694	0.0448	1.0900e-003	6.0493

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.36896 / 2.14119	4.7694	0.0448	1.0900e-003	6.0493
Total		**4.7694**	**0.0448**	**1.0900e-003**	**6.0493**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.36896 / 2.14119	4.7694	0.0448	1.0900e-003	6.0486
Total		**4.7694**	**0.0448**	**1.0900e-003**	**6.0486**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.3645	0.4352	0.0000	16.5044
Unmitigated	7.3645	0.4352	0.0000	16.5044

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	36.28	7.3645	0.4352	0.0000	16.5044
Total		**7.3645**	**0.4352**	**0.0000**	**16.5044**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	36.28	7.3645	0.4352	0.0000	16.5044
Total		**7.3645**	**0.4352**	**0.0000**	**16.5044**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 8

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	107.91	1000sqft	2.48	107,908.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.414 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblLandUse	LandUseSquareFeet	107,910.00	107,908.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7550	3.4414	2.8248	4.2400e-003	0.0819	0.2126	0.2945	0.0266	0.2026	0.2292	0.0000	363.1376	363.1376	0.0678	0.0000	364.5622
2017	1.0018	8.9000e-003	9.0900e-003	2.0000e-005	3.3000e-004	7.0000e-004	1.0200e-003	9.0000e-005	7.0000e-004	7.8000e-004	0.0000	1.3343	1.3343	1.2000e-004	0.0000	1.3369
Total	**1.7568**	**3.4503**	**2.8339**	**4.2600e-003**	**0.0823**	**0.2133**	**0.2956**	**0.0266**	**0.2033**	**0.2300**	**0.0000**	**364.4719**	**364.4719**	**0.0680**	**0.0000**	**365.8991**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7550	3.4413	2.8248	4.2400e-003	0.0819	0.2126	0.2945	0.0266	0.2026	0.2292	0.0000	363.1372	363.1372	0.0678	0.0000	364.5618
2017	1.0018	8.9000e-003	9.0900e-003	2.0000e-005	3.3000e-004	7.0000e-004	1.0200e-003	9.0000e-005	7.0000e-004	7.8000e-004	0.0000	1.3343	1.3343	1.2000e-004	0.0000	1.3369
Total	**1.7568**	**3.4502**	**2.8339**	**4.2600e-003**	**0.0823**	**0.2133**	**0.2956**	**0.0266**	**0.2033**	**0.2300**	**0.0000**	**364.4715**	**364.4715**	**0.0680**	**0.0000**	**365.8987**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5469	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003
Energy	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	479.9882	479.9882	0.0176	5.8900e-003	482.1856
Mobile	5.0858	6.5443	59.5761	0.4405	0.6827	0.0766	0.7593	0.1982	0.0766	0.2748	0.0000	1,066.6871	1,066.6871	0.3419	0.0000	1,073.8666
Waste						0.0000	0.0000		0.0000	0.0000	28.4756	0.0000	28.4756	1.6829	0.0000	63.8156
Water						0.0000	0.0000		0.0000	0.0000	1.6792	16.7608	18.4400	0.1732	4.2300e-003	23.3888
Total	**5.6485**	**6.6879**	**59.7000**	**0.4414**	**0.6827**	**0.0875**	**0.7702**	**0.1982**	**0.0875**	**0.2857**	**30.1548**	**1,563.4381**	**1,593.5929**	**2.2156**	**0.0101**	**1,643.2594**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5469	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003
Energy	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	479.9882	479.9882	0.0176	5.8900e-003	482.1856
Mobile	5.0858	6.5443	59.5761	0.4405	0.6827	0.0766	0.7593	0.1982	0.0766	0.2748	0.0000	1,066.6871	1,066.6871	0.3419	0.0000	1,073.8666
Waste						0.0000	0.0000		0.0000	0.0000	28.4756	0.0000	28.4756	1.6829	0.0000	63.8156
Water						0.0000	0.0000		0.0000	0.0000	1.6792	16.7608	18.4400	0.1732	4.2200e-003	23.3861
Total	**5.6485**	**6.6879**	**59.7000**	**0.4414**	**0.6827**	**0.0875**	**0.7702**	**0.1982**	**0.0875**	**0.2857**	**30.1548**	**1,563.4381**	**1,593.5929**	**2.2156**	**0.0101**	**1,643.2567**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.10**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 161,862; Non-Residential Outdoor: 53,954 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	45.00	18.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8222	5.8222	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8222**	**5.8222**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8221	5.8221	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8221**	**5.8221**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7292	234.7292	0.0541	0.0000	235.8650
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7292**	**234.7292**	**0.0541**	**0.0000**	**235.8650**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0284	0.1954	0.3642	4.6000e-004	0.0127	2.8200e-003	0.0155	3.6200e-003	2.5900e-003	6.2100e-003	0.0000	41.1407	41.1407	3.3000e-004	0.0000	41.1476
Worker	0.0178	0.0245	0.2455	5.9000e-004	0.0449	4.1000e-004	0.0453	0.0119	3.8000e-004	0.0123	0.0000	44.7513	44.7513	2.3700e-003	0.0000	44.8011
Total	**0.0463**	**0.2199**	**0.6097**	**1.0500e-003**	**0.0576**	**3.2300e-003**	**0.0608**	**0.0156**	**2.9700e-003**	**0.0185**	**0.0000**	**85.8921**	**85.8921**	**2.7000e-003**	**0.0000**	**85.9487**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7289	234.7289	0.0541	0.0000	235.8647
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7289**	**234.7289**	**0.0541**	**0.0000**	**235.8647**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0284	0.1954	0.3642	4.6000e-004	0.0127	2.8200e-003	0.0155	3.6200e-003	2.5900e-003	6.2100e-003	0.0000	41.1407	41.1407	3.3000e-004	0.0000	41.1476
Worker	0.0178	0.0245	0.2455	5.9000e-004	0.0449	4.1000e-004	0.0453	0.0119	3.8000e-004	0.0123	0.0000	44.7513	44.7513	2.3700e-003	0.0000	44.8011
Total	**0.0463**	**0.2199**	**0.6097**	**1.0500e-003**	**0.0576**	**3.2300e-003**	**0.0608**	**0.0156**	**2.9700e-003**	**0.0185**	**0.0000**	**85.8921**	**85.8921**	**2.7000e-003**	**0.0000**	**85.9487**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2505**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0814	0.0814	0.0000	0.0000	0.0815
Total	**3.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0814**	**0.0814**	**0.0000**	**0.0000**	**0.0815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2505**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0814	0.0814	0.0000	0.0000	0.0815
Total	**3.0000e-005**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0814**	**0.0814**	**0.0000**	**0.0000**	**0.0815**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**1.0016**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.6000e-004	1.6100e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3130	0.3130	2.0000e-005	0.0000	0.3134
Total	**1.2000e-004**	**1.6000e-004**	**1.6100e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3130**	**0.3130**	**2.0000e-005**	**0.0000**	**0.3134**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**1.0016**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.6000e-004	1.6100e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3130	0.3130	2.0000e-005	0.0000	0.3134
Total	**1.2000e-004**	**1.6000e-004**	**1.6100e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3130**	**0.3130**	**2.0000e-005**	**0.0000**	**0.3134**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.0858	6.5443	59.5761	0.4405	0.6827	0.0766	0.7593	0.1982	0.0766	0.2748	0.0000	1,066.6871	1,066.6871	0.3419	0.0000	1,073.8666
Unmitigated	5.0858	6.5443	59.5761	0.4405	0.6827	0.0766	0.7593	0.1982	0.0766	0.2748	0.0000	1,066.6871	1,066.6871	0.3419	0.0000	1,073.8666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	800.04	800.04	800.04	2,031,743	2,031,743
Total	800.04	800.04	800.04	2,031,743	2,031,743

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	323.6482	323.6482	0.0146	3.0300e-003	324.8941
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	323.6482	323.6482	0.0146	3.0300e-003	324.8941
NaturalGas Mitigated	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.3401	156.3401	3.0000e-003	2.8700e-003	157.2915
NaturalGas Unmitigated	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.3401	156.3401	3.0000e-003	2.8700e-003	157.2915

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.9297e +006	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.3401	156.3401	3.0000e-003	2.8700e-003	157.2915
Total		**0.0158**	**0.1436**	**0.1206**	**8.6000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**156.3401**	**156.3401**	**3.0000e-003**	**2.8700e-003**	**157.2915**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.9297e+006	0.0158	0.1436	0.1206	8.6000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	156.3401	156.3401	3.0000e-003	2.8700e-003	157.2915
Total		**0.0158**	**0.1436**	**0.1206**	**8.6000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**156.3401**	**156.3401**	**3.0000e-003**	**2.8700e-003**	**157.2915**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.11253e+006	323.6482	0.0146	3.0300e-003	324.8941
Total		**323.6482**	**0.0146**	**3.0300e-003**	**324.8941**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.11253e+006	323.6482	0.0146	3.0300e-003	324.8941
Total		**323.6482**	**0.0146**	**3.0300e-003**	**324.8941**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5469	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003
Unmitigated	0.5469	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003
Total	**0.5469**	**1.0000e-005**	**3.2400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.9300e-003**	**1.9300e-003**	**4.0000e-005**	**0.0000**	**2.6900e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.3000e-004	1.0000e-005	3.2400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	1.9300e-003	1.9300e-003	4.0000e-005	0.0000	2.6900e-003
Total	**0.5469**	**1.0000e-005**	**3.2400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.9300e-003**	**1.9300e-003**	**4.0000e-005**	**0.0000**	**2.6900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.4400	0.1732	4.2200e-003	23.3861
Unmitigated	18.4400	0.1732	4.2300e-003	23.3888

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	5.29288 / 8.27861	18.4400	0.1732	4.2300e-003	23.3888
Total		**18.4400**	**0.1732**	**4.2300e-003**	**23.3888**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	5.29288 / 8.27861	18.4400	0.1732	4.2200e-003	23.3861
Total		**18.4400**	**0.1732**	**4.2200e-003**	**23.3861**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.4756	1.6829	0.0000	63.8156
Unmitigated	28.4756	1.6829	0.0000	63.8156

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	140.28	28.4756	1.6829	0.0000	63.8156
Total		**28.4756**	**1.6829**	**0.0000**	**63.8156**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	140.28	28.4756	1.6829	0.0000	63.8156
Total		**28.4756**	**1.6829**	**0.0000**	**63.8156**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 9

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	27.00	Dwelling Unit	0.71	27,000.00	47

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	14,850.00	8,890.00
tblArchitecturalCoating	ConstArea_Residential_Interior	44,550.00	26,671.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	12.10	0.00
tblFireplaces	NumberNoFireplace	6.82	0.00
tblFireplaces	NumberWood	3.08	0.00
tblLandUse	Population	77.00	47.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	10.12	6.06
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	16.00	9.00
tblTripsAndVMT	WorkerTripNumber	3.00	2.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	1,433,388.56	858,078.52
tblWater	OutdoorWaterUseRate	903,658.01	540,962.54
tblWoodstoves	NumberCatalytic	0.11	0.00
tblWoodstoves	NumberNoncatalytic	0.11	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2901	0.7998	0.5265	7.6000e-004	6.4400e-003	0.0545	0.0609	1.8900e-003	0.0504	0.0522	0.0000	69.6168	69.6168	0.0186	0.0000	70.0071
Total	**0.2901**	**0.7998**	**0.5265**	**7.6000e-004**	**6.4400e-003**	**0.0545**	**0.0609**	**1.8900e-003**	**0.0504**	**0.0522**	**0.0000**	**69.6168**	**69.6168**	**0.0186**	**0.0000**	**70.0071**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2901	0.7998	0.5265	7.6000e-004	6.4400e-003	0.0545	0.0609	1.8900e-003	0.0504	0.0522	0.0000	69.6167	69.6167	0.0186	0.0000	70.0070
Total	**0.2901**	**0.7998**	**0.5265**	**7.6000e-004**	**6.4400e-003**	**0.0545**	**0.0609**	**1.8900e-003**	**0.0504**	**0.0522**	**0.0000**	**69.6167**	**69.6167**	**0.0186**	**0.0000**	**70.0070**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1633	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763
Energy	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	37.9505	37.9505	1.4500e-003	4.5000e-004	38.1193
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2301	0.0000	1.2301	0.0727	0.0000	2.7568
Water						0.0000	0.0000		0.0000	0.0000	0.2722	1.9015	2.1738	0.0281	6.8000e-004	2.9729
Total	**0.1643**	**0.0118**	**0.4558**	**2.2000e-004**	**0.0000**	**1.2100e-003**	**1.2100e-003**	**0.0000**	**1.2100e-003**	**1.2100e-003**	**1.5024**	**40.1795**	**41.6819**	**0.1045**	**1.1300e-003**	**44.2253**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1633	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763
Energy	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	37.9505	37.9505	1.4500e-003	4.5000e-004	38.1193
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2301	0.0000	1.2301	0.0727	0.0000	2.7568
Water						0.0000	0.0000		0.0000	0.0000	0.2722	1.9015	2.1738	0.0280	6.8000e-004	2.9725
Total	**0.1643**	**0.0118**	**0.4558**	**2.2000e-004**	**0.0000**	**1.2100e-003**	**1.2100e-003**	**0.0000**	**1.2100e-003**	**1.2100e-003**	**1.5024**	**40.1795**	**41.6819**	**0.1045**	**1.1300e-003**	**44.2249**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 26,671; Residential Outdoor: 8,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.6200e-003	2.2300e-003	0.0223	5.0000e-005	4.0800e-003	4.0000e-005	4.1200e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	4.0683	4.0683	2.2000e-004	0.0000	4.0728
Total	**2.3400e-003**	**7.1600e-003**	**0.0315**	**6.0000e-005**	**4.4000e-003**	**1.1000e-004**	**4.5100e-003**	**1.1800e-003**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**5.1072**	**5.1072**	**2.3000e-004**	**0.0000**	**5.1119**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.6200e-003	2.2300e-003	0.0223	5.0000e-005	4.0800e-003	4.0000e-005	4.1200e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	4.0683	4.0683	2.2000e-004	0.0000	4.0728
Total	**2.3400e-003**	**7.1600e-003**	**0.0315**	**6.0000e-005**	**4.4000e-003**	**1.1000e-004**	**4.5100e-003**	**1.1800e-003**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**5.1072**	**5.1072**	**2.3000e-004**	**0.0000**	**5.1119**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2070**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.2070**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.7844	27.7844	1.2600e-003	2.6000e-004	27.8914
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.7844	27.7844	1.2600e-003	2.6000e-004	27.8914
NaturalGas Mitigated	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	10.1661	10.1661	1.9000e-004	1.9000e-004	10.2280
NaturalGas Unmitigated	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	10.1661	10.1661	1.9000e-004	1.9000e-004	10.2280

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	190505	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	10.1661	10.1661	1.9000e-004	1.9000e-004	10.2280
Total		**1.0300e-003**	**8.7800e-003**	**3.7400e-003**	**6.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**10.1661**	**10.1661**	**1.9000e-004**	**1.9000e-004**	**10.2280**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	190505	1.0300e-003	8.7800e-003	3.7400e-003	6.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	10.1661	10.1661	1.9000e-004	1.9000e-004	10.2280
Total		**1.0300e-003**	**8.7800e-003**	**3.7400e-003**	**6.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**10.1661**	**10.1661**	**1.9000e-004**	**1.9000e-004**	**10.2280**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	95508.2	27.7844	1.2600e-003	2.6000e-004	27.8914
Total		**27.7844**	**1.2600e-003**	**2.6000e-004**	**27.8914**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	95508.2	27.7844	1.2600e-003	2.6000e-004	27.8914
Total		**27.7844**	**1.2600e-003**	**2.6000e-004**	**27.8914**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1633	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763
Unmitigated	0.1633	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0344					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0234	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763
Total	**0.1633**	**3.0500e-003**	**0.4520**	**1.6000e-004**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.3275**	**0.3275**	**2.3200e-003**	**0.0000**	**0.3763**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0344					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0234	3.0500e-003	0.4520	1.6000e-004		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	0.3275	0.3275	2.3200e-003	0.0000	0.3763
Total	**0.1633**	**3.0500e-003**	**0.4520**	**1.6000e-004**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.3275**	**0.3275**	**2.3200e-003**	**0.0000**	**0.3763**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1738	0.0280	6.8000e-004	2.9725
Unmitigated	2.1738	0.0281	6.8000e-004	2.9729

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.858079 / 0.540963	2.1738	0.0281	6.8000e-004	2.9729
Total		**2.1738**	**0.0281**	**6.8000e-004**	**2.9729**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.858079 / 0.540963	2.1738	0.0280	6.8000e-004	2.9725
Total		**2.1738**	**0.0280**	**6.8000e-004**	**2.9725**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2301	0.0727	0.0000	2.7568
Unmitigated	1.2301	0.0727	0.0000	2.7568

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	6.06	1.2301	0.0727	0.0000	2.7568
Total		**1.2301**	**0.0727**	**0.0000**	**2.7568**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	6.06	1.2301	0.0727	0.0000	2.7568
Total		**1.2301**	**0.0727**	**0.0000**	**2.7568**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 11

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	15.00	Dwelling Unit	0.39	15,000.00	37

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	10,125.00	7,058.00
tblArchitecturalCoating	ConstArea_Residential_Interior	30,375.00	21,173.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	8.25	0.00
tblFireplaces	NumberNoFireplace	4.65	0.00
tblFireplaces	NumberWood	2.10	0.00
tblLandUse	Population	43.00	37.00
tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	6.90	4.81
tblTripsAndVMT	VendorTripNumber	2.00	1.00
tblTripsAndVMT	WorkerTripNumber	11.00	8.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	977,310.38	681,511.11
tblWater	OutdoorWaterUseRate	616,130.46	429,648.31
tblWoodstoves	NumberCatalytic	0.08	0.00
tblWoodstoves	NumberNoncatalytic	0.08	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2475	0.7995	0.5241	7.5000e-004	5.9900e-003	0.0545	0.0605	1.7700e-003	0.0503	0.0521	0.0000	69.1648	69.1648	0.0186	0.0000	69.5545
Total	**0.2475**	**0.7995**	**0.5241**	**7.5000e-004**	**5.9900e-003**	**0.0545**	**0.0605**	**1.7700e-003**	**0.0503**	**0.0521**	**0.0000**	**69.1648**	**69.1648**	**0.0186**	**0.0000**	**69.5545**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2475	0.7995	0.5241	7.5000e-004	5.9900e-003	0.0545	0.0605	1.7700e-003	0.0503	0.0521	0.0000	69.1647	69.1647	0.0186	0.0000	69.5544
Total	**0.2475**	**0.7995**	**0.5241**	**7.5000e-004**	**5.9900e-003**	**0.0545**	**0.0605**	**1.7700e-003**	**0.0503**	**0.0521**	**0.0000**	**69.1647**	**69.1647**	**0.0186**	**0.0000**	**69.5544**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0950	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091
Energy	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	21.0836	21.0836	8.1000e-004	2.5000e-004	21.1774
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.9764	0.0000	0.9764	0.0577	0.0000	2.1882
Water						0.0000	0.0000		0.0000	0.0000	0.2162	1.5103	1.7265	0.0223	5.4000e-004	2.3612
Total	**0.0956**	**6.5700e-003**	**0.2532**	**1.2000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**1.1926**	**22.7758**	**23.9684**	**0.0821**	**7.9000e-004**	**25.9358**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0950	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091
Energy	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	21.0836	21.0836	8.1000e-004	2.5000e-004	21.1774
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.9764	0.0000	0.9764	0.0577	0.0000	2.1882
Water						0.0000	0.0000		0.0000	0.0000	0.2162	1.5103	1.7265	0.0223	5.4000e-004	2.3608
Total	**0.0956**	**6.5700e-003**	**0.2532**	**1.2000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**1.1926**	**22.7758**	**23.9684**	**0.0821**	**7.9000e-004**	**25.9354**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 21,173; Residential Outdoor: 7,058; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	1.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.4400e-003	1.9800e-003	0.0198	5.0000e-005	3.6300e-003	3.0000e-005	3.6600e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	3.6163	3.6163	1.9000e-004	0.0000	3.6203
Total	**2.1600e-003**	**6.9100e-003**	**0.0290**	**6.0000e-005**	**3.9500e-003**	**1.0000e-004**	**4.0500e-003**	**1.0600e-003**	**1.0000e-004**	**1.1600e-003**	**0.0000**	**4.6552**	**4.6552**	**2.0000e-004**	**0.0000**	**4.6594**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	4.9300e-003	9.2000e-003	1.0000e-005	3.2000e-004	7.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.0389	1.0389	1.0000e-005	0.0000	1.0391
Worker	1.4400e-003	1.9800e-003	0.0198	5.0000e-005	3.6300e-003	3.0000e-005	3.6600e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	3.6163	3.6163	1.9000e-004	0.0000	3.6203
Total	**2.1600e-003**	**6.9100e-003**	**0.0290**	**6.0000e-005**	**3.9500e-003**	**1.0000e-004**	**4.0500e-003**	**1.0600e-003**	**1.0000e-004**	**1.1600e-003**	**0.0000**	**4.6552**	**4.6552**	**2.0000e-004**	**0.0000**	**4.6594**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.1645**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Archit. Coating	0.1636					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.1645**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.4358	15.4358	7.0000e-004	1.4000e-004	15.4952
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.4358	15.4358	7.0000e-004	1.4000e-004	15.4952
NaturalGas Mitigated	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.6478	5.6478	1.1000e-004	1.0000e-004	5.6822
NaturalGas Unmitigated	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.6478	5.6478	1.1000e-004	1.0000e-004	5.6822

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	105836	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.6478	5.6478	1.1000e-004	1.0000e-004	5.6822
Total		**5.7000e-004**	**4.8800e-003**	**2.0800e-003**	**3.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**5.6478**	**5.6478**	**1.1000e-004**	**1.0000e-004**	**5.6822**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	105836	5.7000e-004	4.8800e-003	2.0800e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.6478	5.6478	1.1000e-004	1.0000e-004	5.6822
Total		**5.7000e-004**	**4.8800e-003**	**2.0800e-003**	**3.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**5.6478**	**5.6478**	**1.1000e-004**	**1.0000e-004**	**5.6822**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	53060.1	15.4358	7.0000e-004	1.4000e-004	15.4952
Total		**15.4358**	**7.0000e-004**	**1.4000e-004**	**15.4952**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	53060.1	15.4358	7.0000e-004	1.4000e-004	15.4952
Total		**15.4358**	**7.0000e-004**	**1.4000e-004**	**15.4952**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0950	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091
Unmitigated	0.0950	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0130	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091
Total	**0.0950**	**1.6900e-003**	**0.2511**	**9.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.1819**	**0.1819**	**1.2900e-003**	**0.0000**	**0.2091**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0235					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0586					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0130	1.6900e-003	0.2511	9.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.1819	0.1819	1.2900e-003	0.0000	0.2091
Total	**0.0950**	**1.6900e-003**	**0.2511**	**9.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.1819**	**0.1819**	**1.2900e-003**	**0.0000**	**0.2091**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7265	0.0223	5.4000e-004	2.3608
Unmitigated	1.7265	0.0223	5.4000e-004	2.3612

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.681511 / 0.429648	1.7265	0.0223	5.4000e-004	2.3612
Total		**1.7265**	**0.0223**	**5.4000e-004**	**2.3612**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.681511 / 0.429648	1.7265	0.0223	5.4000e-004	2.3608
Total		**1.7265**	**0.0223**	**5.4000e-004**	**2.3608**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9764	0.0577	0.0000	2.1882
Unmitigated	0.9764	0.0577	0.0000	2.1882

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	4.81	0.9764	0.0577	0.0000	2.1882
Total		**0.9764**	**0.0577**	**0.0000**	**2.1882**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	4.81	0.9764	0.0577	0.0000	2.1882
Total		**0.9764**	**0.0577**	**0.0000**	**2.1882**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 12

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	42.00	Dwelling Unit	1.11	42,000.00	122

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 4.6 **Precipitation Freq (Days)** 64

Climate Zone 5 **Operational Year** 1990

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fire places or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	28,350.00	16,556.00
tblArchitecturalCoating	ConstArea_Residential_Interior	85,050.00	49,669.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	200.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	2.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	23.10	0.00
tblFireplaces	NumberNoFireplace	13.02	0.00
tblFireplaces	NumberWood	5.88	0.00
tblLandUse	Population	120.00	122.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblProjectCharacteristics	OperationalYear	2014	1990
tblSolidWaste	SolidWasteGenerationRate	19.32	11.28
tblTripsAndVMT	VendorTripNumber	4.00	3.00
tblTripsAndVMT	WorkerTripNumber	30.00	18.00
tblTripsAndVMT	WorkerTripNumber	6.00	4.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	2,736,469.08	1,598,228.25
tblWater	OutdoorWaterUseRate	1,725,165.29	1,007,578.68
tblWoodstoves	NumberCatalytic	0.21	0.00
tblWoodstoves	NumberNoncatalytic	0.21	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4709	0.8119	0.5675	8.3000e-004	0.0112	0.0547	0.0659	3.1700e-003	0.0505	0.0537	0.0000	75.8081	75.8081	0.0188	0.0000	76.2033
Total	**0.4709**	**0.8119**	**0.5675**	**8.3000e-004**	**0.0112**	**0.0547**	**0.0659**	**3.1700e-003**	**0.0505**	**0.0537**	**0.0000**	**75.8081**	**75.8081**	**0.0188**	**0.0000**	**76.2033**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4709	0.8119	0.5675	8.3000e-004	0.0112	0.0547	0.0659	3.1700e-003	0.0505	0.0537	0.0000	75.8081	75.8081	0.0188	0.0000	76.2032
Total	**0.4709**	**0.8119**	**0.5675**	**8.3000e-004**	**0.0112**	**0.0547**	**0.0659**	**3.1700e-003**	**0.0505**	**0.0537**	**0.0000**	**75.8081**	**75.8081**	**0.0188**	**0.0000**	**76.2032**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2661	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853
Energy	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	59.0341	59.0341	2.2600e-003	6.9000e-004	59.2968
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	2.2897	0.0000	2.2897	0.1353	0.0000	5.1315
Water						0.0000	0.0000		0.0000	0.0000	0.5070	3.5417	4.0488	0.0522	1.2600e-003	5.5372
Total	**0.2677**	**0.0184**	**0.7090**	**3.4000e-004**	**0.0000**	**1.8800e-003**	**1.8800e-003**	**0.0000**	**1.8800e-003**	**1.8800e-003**	**2.7968**	**63.0853**	**65.8820**	**0.1934**	**1.9500e-003**	**70.5508**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2661	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853
Energy	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	59.0341	59.0341	2.2600e-003	6.9000e-004	59.2968
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	2.2897	0.0000	2.2897	0.1353	0.0000	5.1315
Water						0.0000	0.0000		0.0000	0.0000	0.5070	3.5417	4.0488	0.0522	1.2600e-003	5.5364
Total	**0.2677**	**0.0184**	**0.7090**	**3.4000e-004**	**0.0000**	**1.8800e-003**	**1.8800e-003**	**0.0000**	**1.8800e-003**	**1.8800e-003**	**2.7968**	**63.0853**	**65.8820**	**0.1934**	**1.9500e-003**	**70.5500**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 49,669; Residential Outdoor: 16,556; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	18.00	3.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1500e-003	0.0148	0.0276	3.0000e-005	9.6000e-004	2.1000e-004	1.1700e-003	2.7000e-004	2.0000e-004	4.7000e-004	0.0000	3.1167	3.1167	2.0000e-005	0.0000	3.1172
Worker	3.2400e-003	4.4500e-003	0.0446	1.1000e-004	8.1600e-003	7.0000e-005	8.2400e-003	2.1700e-003	7.0000e-005	2.2400e-003	0.0000	8.1366	8.1366	4.3000e-004	0.0000	8.1457
Total	**5.3900e-003**	**0.0193**	**0.0722**	**1.4000e-004**	**9.1200e-003**	**2.8000e-004**	**9.4100e-003**	**2.4400e-003**	**2.7000e-004**	**2.7100e-003**	**0.0000**	**11.2533**	**11.2533**	**4.5000e-004**	**0.0000**	**11.2629**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1500e-003	0.0148	0.0276	3.0000e-005	9.6000e-004	2.1000e-004	1.1700e-003	2.7000e-004	2.0000e-004	4.7000e-004	0.0000	3.1167	3.1167	2.0000e-005	0.0000	3.1172
Worker	3.2400e-003	4.4500e-003	0.0446	1.1000e-004	8.1600e-003	7.0000e-005	8.2400e-003	2.1700e-003	7.0000e-005	2.2400e-003	0.0000	8.1366	8.1366	4.3000e-004	0.0000	8.1457
Total	**5.3900e-003**	**0.0193**	**0.0722**	**1.4000e-004**	**9.1200e-003**	**2.8000e-004**	**9.4100e-003**	**2.4400e-003**	**2.7000e-004**	**2.7100e-003**	**0.0000**	**11.2533**	**11.2533**	**4.5000e-004**	**0.0000**	**11.2629**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3846**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3837					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3846**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	43.2202	43.2202	1.9500e-003	4.0000e-004	43.3866
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	43.2202	43.2202	1.9500e-003	4.0000e-004	43.3866
NaturalGas Mitigated	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	15.8139	15.8139	3.0000e-004	2.9000e-004	15.9102
NaturalGas Unmitigated	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	15.8139	15.8139	3.0000e-004	2.9000e-004	15.9102

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	296342	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	15.8139	15.8139	3.0000e-004	2.9000e-004	15.9102
Total		**1.6000e-003**	**0.0137**	**5.8100e-003**	**9.0000e-005**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**15.8139**	**15.8139**	**3.0000e-004**	**2.9000e-004**	**15.9102**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	296342	1.6000e-003	0.0137	5.8100e-003	9.0000e-005		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	15.8139	15.8139	3.0000e-004	2.9000e-004	15.9102
Total		**1.6000e-003**	**0.0137**	**5.8100e-003**	**9.0000e-005**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**15.8139**	**15.8139**	**3.0000e-004**	**2.9000e-004**	**15.9102**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	148568	43.2202	1.9500e-003	4.0000e-004	43.3866
Total		**43.2202**	**1.9500e-003**	**4.0000e-004**	**43.3866**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	148568	43.2202	1.9500e-003	4.0000e-004	43.3866
Total		**43.2202**	**1.9500e-003**	**4.0000e-004**	**43.3866**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2661	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853
Unmitigated	0.2661	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0364	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853
Total	**0.2661**	**4.7500e-003**	**0.7032**	**2.5000e-004**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**0.5094**	**0.5094**	**3.6200e-003**	**0.0000**	**0.5853**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0364	4.7500e-003	0.7032	2.5000e-004		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	0.5094	0.5094	3.6200e-003	0.0000	0.5853
Total	**0.2661**	**4.7500e-003**	**0.7032**	**2.5000e-004**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**0.5094**	**0.5094**	**3.6200e-003**	**0.0000**	**0.5853**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.0488	0.0522	1.2600e-003	5.5364
Unmitigated	4.0488	0.0522	1.2600e-003	5.5372

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.59823 / 1.00758	4.0488	0.0522	1.2600e-003	5.5372
Total		**4.0488**	**0.0522**	**1.2600e-003**	**5.5372**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.59823 / 1.00758	4.0488	0.0522	1.2600e-003	5.5364
Total		**4.0488**	**0.0522**	**1.2600e-003**	**5.5364**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.2897	0.1353	0.0000	5.1315
Unmitigated	2.2897	0.1353	0.0000	5.1315

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	11.28	2.2897	0.1353	0.0000	5.1315
Total		**2.2897**	**0.1353**	**0.0000**	**5.1315**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	11.28	2.2897	0.1353	0.0000	5.1315
Total		**2.2897**	**0.1353**	**0.0000**	**5.1315**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 13

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	87.00	Dwelling Unit	2.29	87,000.00	184

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assume no fireplaces or wood burning stoves.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	60,075.00	23,822.00
tblArchitecturalCoating	ConstArea_Residential_Interior	180,225.00	71,466.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	48.95	0.00
tblFireplaces	NumberNoFireplace	27.59	0.00
tblFireplaces	NumberWood	12.46	0.00
tblLandUse	Population	249.00	184.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblSolidWaste	SolidWasteGenerationRate	40.94	16.23
tblTripsAndVMT	VendorTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	64.00	25.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWater	IndoorWaterUseRate	5,798,708.28	2,299,285.56
tblWater	OutdoorWaterUseRate	3,655,707.39	1,449,549.59
tblWoodstoves	NumberCatalytic	0.45	0.00
tblWoodstoves	NumberNoncatalytic	0.45	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6412	0.8186	0.5942	8.9000e-004	0.0147	0.0548	0.0695	4.1100e-003	0.0506	0.0547	0.0000	80.0339	80.0339	0.0190	0.0000	80.4328
Total	**0.6412**	**0.8186**	**0.5942**	**8.9000e-004**	**0.0147**	**0.0548**	**0.0695**	**4.1100e-003**	**0.0506**	**0.0547**	**0.0000**	**80.0339**	**80.0339**	**0.0190**	**0.0000**	**80.4328**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6412	0.8186	0.5942	8.9000e-004	0.0147	0.0548	0.0695	4.1100e-003	0.0506	0.0547	0.0000	80.0338	80.0338	0.0190	0.0000	80.4327
Total	**0.6412**	**0.8186**	**0.5942**	**8.9000e-004**	**0.0147**	**0.0548**	**0.0695**	**4.1100e-003**	**0.0506**	**0.0547**	**0.0000**	**80.0338**	**80.0338**	**0.0190**	**0.0000**	**80.4327**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5290	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083
Energy	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	122.2850	122.2850	4.6800e-003	1.4400e-003	122.8290
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	3.2945	0.0000	3.2945	0.1947	0.0000	7.3833
Water						0.0000	0.0000		0.0000	0.0000	0.7295	5.0953	5.8247	0.0752	1.8200e-003	7.9661
Total	**0.5323**	**0.0366**	**0.9751**	**2.3000e-004**	**0.0000**	**5.2100e-003**	**5.2100e-003**	**0.0000**	**5.2100e-003**	**5.2100e-003**	**4.0240**	**128.4355**	**132.4595**	**0.2771**	**3.2600e-003**	**139.2867**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5290	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083
Energy	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	122.2850	122.2850	4.6800e-003	1.4400e-003	122.8290
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	3.2945	0.0000	3.2945	0.1947	0.0000	7.3833
Water						0.0000	0.0000		0.0000	0.0000	0.7295	5.0953	5.8247	0.0751	1.8100e-003	7.9650
Total	**0.5323**	**0.0366**	**0.9751**	**2.3000e-004**	**0.0000**	**5.2100e-003**	**5.2100e-003**	**0.0000**	**5.2100e-003**	**5.2100e-003**	**4.0240**	**128.4355**	**132.4595**	**0.2771**	**3.2500e-003**	**139.2856**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.31**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 71,466; Residential Outdoor: 23,822; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	25.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	4.5000e-003	6.1800e-003	0.0620	1.5000e-004	0.0113	1.0000e-004	0.0114	3.0200e-003	1.0000e-004	3.1100e-003	0.0000	11.3008	11.3008	6.0000e-004	0.0000	11.3134
Total	**7.3700e-003**	**0.0259**	**0.0988**	**2.0000e-004**	**0.0126**	**3.8000e-004**	**0.0130**	**3.3900e-003**	**3.6000e-004**	**3.7400e-003**	**0.0000**	**15.4565**	**15.4565**	**6.3000e-004**	**0.0000**	**15.4697**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	4.5000e-003	6.1800e-003	0.0620	1.5000e-004	0.0113	1.0000e-004	0.0114	3.0200e-003	1.0000e-004	3.1100e-003	0.0000	11.3008	11.3008	6.0000e-004	0.0000	11.3134
Total	**7.3700e-003**	**0.0259**	**0.0988**	**2.0000e-004**	**0.0126**	**3.8000e-004**	**0.0130**	**3.3900e-003**	**3.6000e-004**	**3.7400e-003**	**0.0000**	**15.4565**	**15.4565**	**6.3000e-004**	**0.0000**	**15.4697**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.5530**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	1.0000e-005	0.0000	0.1131
Total	**5.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1130**	**0.1130**	**1.0000e-005**	**0.0000**	**0.1131**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.5530**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	1.0000e-005	0.0000	0.1131
Total	**5.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1130**	**0.1130**	**1.0000e-005**	**0.0000**	**0.1131**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	89.5276	89.5276	4.0500e-003	8.4000e-004	89.8722
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	89.5276	89.5276	4.0500e-003	8.4000e-004	89.8722
NaturalGas Mitigated	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7574	32.7574	6.3000e-004	6.0000e-004	32.9567
NaturalGas Unmitigated	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7574	32.7574	6.3000e-004	6.0000e-004	32.9567

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	613850	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7574	32.7574	6.3000e-004	6.0000e-004	32.9567
Total		**3.3100e-003**	**0.0283**	**0.0120**	**1.8000e-004**		**2.2900e-003**	**2.2900e-003**		**2.2900e-003**	**2.2900e-003**	**0.0000**	**32.7574**	**32.7574**	**6.3000e-004**	**6.0000e-004**	**32.9567**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	613850	3.3100e-003	0.0283	0.0120	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003	0.0000	32.7574	32.7574	6.3000e-004	6.0000e-004	32.9567
Total		**3.3100e-003**	**0.0283**	**0.0120**	**1.8000e-004**		**2.2900e-003**	**2.2900e-003**		**2.2900e-003**	**2.2900e-003**	**0.0000**	**32.7574**	**32.7574**	**6.3000e-004**	**6.0000e-004**	**32.9567**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	307749	89.5276	4.0500e-003	8.4000e-004	89.8722
Total		**89.5276**	**4.0500e-003**	**8.4000e-004**	**89.8722**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	307749	89.5276	4.0500e-003	8.4000e-004	89.8722
Total		**89.5276**	**4.0500e-003**	**8.4000e-004**	**89.8722**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5290	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083
Unmitigated	0.5290	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3398					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0500	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083
Total	**0.5290**	**8.3400e-003**	**0.9630**	**5.0000e-005**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**1.0552**	**1.0552**	**2.5300e-003**	**0.0000**	**1.1083**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3398					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0500	8.3400e-003	0.9630	5.0000e-005		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	1.0552	1.0552	2.5300e-003	0.0000	1.1083
Total	**0.5290**	**8.3400e-003**	**0.9630**	**5.0000e-005**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**1.0552**	**1.0552**	**2.5300e-003**	**0.0000**	**1.1083**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.8247	0.0751	1.8100e-003	7.9650
Unmitigated	5.8247	0.0752	1.8200e-003	7.9661

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.29929 / 1.44955	5.8247	0.0752	1.8200e-003	7.9661
Total		**5.8247**	**0.0752**	**1.8200e-003**	**7.9661**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.29929 / 1.44955	5.8247	0.0751	1.8100e-003	7.9650
Total		**5.8247**	**0.0751**	**1.8100e-003**	**7.9650**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.2945	0.1947	0.0000	7.3833
Unmitigated	3.2945	0.1947	0.0000	7.3833

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	16.23	3.2945	0.1947	0.0000	7.3833
Total		**3.2945**	**0.1947**	**0.0000**	**7.3833**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	16.23	3.2945	0.1947	0.0000	7.3833
Total		**3.2945**	**0.1947**	**0.0000**	**7.3833**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 14

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	114.00	Dwelling Unit	3.00	114,000.00	222

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves - Assumed no fire places or wood stoves

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	76,950.00	35,093.00
tblArchitecturalCoating	ConstArea_Residential_Interior	230,850.00	105,280.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	77985
tblAreaCoating	Area_Residential_Exterior	76950	0
tblAreaCoating	Area_Residential_Interior	230850	0
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	3.00	2.00
tblEnergyUse	T24E	312.05	234.04
tblFireplaces	NumberGas	62.70	0.00
tblFireplaces	NumberNoFireplace	35.34	0.00
tblFireplaces	NumberWood	15.96	0.00
tblLandUse	Population	326.00	222.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblTripsAndVMT	VendorTripNumber	12.00	6.00
tblTripsAndVMT	WorkerTripNumber	82.00	37.00
tblTripsAndVMT	WorkerTripNumber	16.00	7.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.57	0.00
tblWoodstoves	NumberNoncatalytic	0.57	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2091	2.5617	2.0909	3.1700e-003	0.0553	0.1639	0.2192	0.0186	0.1573	0.1759	0.0000	268.2258	268.2258	0.0518	0.0000	269.3134
Total	**1.2091**	**2.5617**	**2.0909**	**3.1700e-003**	**0.0553**	**0.1639**	**0.2192**	**0.0186**	**0.1573**	**0.1759**	**0.0000**	**268.2258**	**268.2258**	**0.0518**	**0.0000**	**269.3134**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2091	2.5617	2.0909	3.1700e-003	0.0553	0.1639	0.2192	0.0186	0.1573	0.1759	0.0000	268.2255	268.2255	0.0518	0.0000	269.3131
Total	**1.2091**	**2.5617**	**2.0909**	**3.1700e-003**	**0.0553**	**0.1639**	**0.2192**	**0.0186**	**0.1573**	**0.1759**	**0.0000**	**268.2255**	**268.2255**	**0.0518**	**0.0000**	**269.3131**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5559	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Energy	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	171.1731	171.1731	6.3400e-003	2.0800e-003	171.9525
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.6449	0.0000	10.6449	0.6291	0.0000	23.8558
Water						0.0000	0.0000		0.0000	0.0000	2.3564	16.4597	18.8161	0.2428	5.8700e-003	25.7336
Total	**0.5613**	**0.0574**	**1.2817**	**3.6000e-004**	**0.0000**	**7.5900e-003**	**7.5900e-003**	**0.0000**	**7.5900e-003**	**7.5900e-003**	**13.0013**	**189.0154**	**202.0167**	**0.8815**	**7.9500e-003**	**222.9942**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5559	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Energy	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	171.1731	171.1731	6.3400e-003	2.0800e-003	171.9525
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.6449	0.0000	10.6449	0.6291	0.0000	23.8558
Water						0.0000	0.0000		0.0000	0.0000	2.3564	16.4597	18.8161	0.2427	5.8600e-003	25.7298
Total	**0.5613**	**0.0574**	**1.2817**	**3.6000e-004**	**0.0000**	**7.5900e-003**	**7.5900e-003**	**0.0000**	**7.5900e-003**	**7.5900e-003**	**13.0013**	**189.0154**	**202.0167**	**0.8815**	**7.9400e-003**	**222.9904**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 105,280; Residential Outdoor: 35,093; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	37.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.6100e-003	0.0592	0.1104	1.4000e-004	3.8300e-003	8.5000e-004	4.6900e-003	1.1000e-003	7.8000e-004	1.8800e-003	0.0000	12.4669	12.4669	1.0000e-004	0.0000	12.4690
Worker	0.0133	0.0183	0.1835	4.4000e-004	0.0336	3.1000e-004	0.0339	8.9300e-003	2.8000e-004	9.2100e-003	0.0000	33.4505	33.4505	1.7700e-003	0.0000	33.4877
Total	**0.0219**	**0.0775**	**0.2939**	**5.8000e-004**	**0.0374**	**1.1600e-003**	**0.0386**	**0.0100**	**1.0600e-003**	**0.0111**	**0.0000**	**45.9174**	**45.9174**	**1.8700e-003**	**0.0000**	**45.9567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.6100e-003	0.0592	0.1104	1.4000e-004	3.8300e-003	8.5000e-004	4.6900e-003	1.1000e-003	7.8000e-004	1.8800e-003	0.0000	12.4669	12.4669	1.0000e-004	0.0000	12.4690
Worker	0.0133	0.0183	0.1835	4.4000e-004	0.0336	3.1000e-004	0.0339	8.9300e-003	2.8000e-004	9.2100e-003	0.0000	33.4505	33.4505	1.7700e-003	0.0000	33.4877
Total	**0.0219**	**0.0775**	**0.2939**	**5.8000e-004**	**0.0374**	**1.1600e-003**	**0.0386**	**0.0100**	**1.0600e-003**	**0.0111**	**0.0000**	**45.9174**	**45.9174**	**1.8700e-003**	**0.0000**	**45.9567**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8151**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.7000e-004	1.7400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3164	0.3164	2.0000e-005	0.0000	0.3168
Total	**1.3000e-004**	**1.7000e-004**	**1.7400e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3164**	**0.3164**	**2.0000e-005**	**0.0000**	**0.3168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8151**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.7000e-004	1.7400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3164	0.3164	2.0000e-005	0.0000	0.3168
Total	**1.3000e-004**	**1.7000e-004**	**1.7400e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3164**	**0.3164**	**2.0000e-005**	**0.0000**	**0.3168**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	117.3120	117.3120	5.3000e-003	1.1000e-003	117.7636
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	117.3120	117.3120	5.3000e-003	1.1000e-003	117.7636
NaturalGas Mitigated	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
NaturalGas Unmitigated	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.00932e+006	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
Total		**5.4400e-003**	**0.0465**	**0.0198**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8611**	**53.8611**	**1.0300e-003**	**9.9000e-004**	**54.1889**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.00932e +006	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
Total		**5.4400e-003**	**0.0465**	**0.0198**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8611**	**53.8611**	**1.0300e-003**	**9.9000e-004**	**54.1889**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	403257	117.3120	5.3000e-003	1.1000e-003	117.7636
Total		**117.3120**	**5.3000e-003**	**1.1000e-003**	**117.7636**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	403257	117.3120	5.3000e-003	1.1000e-003	117.7636
Total		**117.3120**	**5.3000e-003**	**1.1000e-003**	**117.7636**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5559	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Unmitigated	0.5559	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0655	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Total	**0.5559**	**0.0109**	**1.2619**	**6.0000e-005**		**3.8300e-003**	**3.8300e-003**		**3.8300e-003**	**3.8300e-003**	**0.0000**	**1.3827**	**1.3827**	**3.3100e-003**	**0.0000**	**1.4523**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0655	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Total	**0.5559**	**0.0109**	**1.2619**	**6.0000e-005**		**3.8300e-003**	**3.8300e-003**		**3.8300e-003**	**3.8300e-003**	**0.0000**	**1.3827**	**1.3827**	**3.3100e-003**	**0.0000**	**1.4523**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.8161	0.2427	5.8600e-003	25.7298
Unmitigated	18.8161	0.2428	5.8700e-003	25.7336

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.42756 / 4.68259	18.8161	0.2428	5.8700e-003	25.7336
Total		**18.8161**	**0.2428**	**5.8700e-003**	**25.7336**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.42756 / 4.68259	18.8161	0.2427	5.8600e-003	25.7298
Total		**18.8161**	**0.2427**	**5.8600e-003**	**25.7298**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.6449	0.6291	0.0000	23.8558
Unmitigated	10.6449	0.6291	0.0000	23.8558

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	52.44	10.6449	0.6291	0.0000	23.8558
Total		**10.6449**	**0.6291**	**0.0000**	**23.8558**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	52.44	10.6449	0.6291	0.0000	23.8558
Total		**10.6449**	**0.6291**	**0.0000**	**23.8558**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 14

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	114.00	Dwelling Unit	3.00	114,000.00	222

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Woodstoves -

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	76,950.00	35,093.00
tblArchitecturalCoating	ConstArea_Residential_Interior	230,850.00	105,280.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	77985
tblAreaCoating	Area_Residential_Exterior	76950	0
tblAreaCoating	Area_Residential_Interior	230850	0
tblConstructionPhase	NumDays	220.00	200.00
tblConstructionPhase	NumDays	6.00	4.00
tblConstructionPhase	NumDays	3.00	2.00
tblEnergyUse	T24E	312.05	234.04
tblLandUse	Population	326.00	222.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblTripsAndVMT	VendorTripNumber	12.00	6.00
tblTripsAndVMT	WorkerTripNumber	82.00	37.00
tblTripsAndVMT	WorkerTripNumber	16.00	7.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2091	2.5617	2.0909	3.1700e-003	0.0553	0.1639	0.2192	0.0186	0.1573	0.1759	0.0000	268.2258	268.2258	0.0518	0.0000	269.3134
Total	**1.2091**	**2.5617**	**2.0909**	**3.1700e-003**	**0.0553**	**0.1639**	**0.2192**	**0.0186**	**0.1573**	**0.1759**	**0.0000**	**268.2258**	**268.2258**	**0.0518**	**0.0000**	**269.3134**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2091	2.5617	2.0909	3.1700e-003	0.0553	0.1639	0.2192	0.0186	0.1573	0.1759	0.0000	268.2255	268.2255	0.0518	0.0000	269.3131
Total	**1.2091**	**2.5617**	**2.0909**	**3.1700e-003**	**0.0553**	**0.1639**	**0.2192**	**0.0186**	**0.1573**	**0.1759**	**0.0000**	**268.2255**	**268.2255**	**0.0518**	**0.0000**	**269.3131**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6443	0.0124	1.3884	1.7000e-004		0.0222	0.0222		0.0222	0.0222	1.8659	4.3970	6.2629	6.7800e-003	1.6000e-004	6.4535
Energy	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	171.1731	171.1731	6.3400e-003	2.0800e-003	171.9525
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.6449	0.0000	10.6449	0.6291	0.0000	23.8558
Water						0.0000	0.0000		0.0000	0.0000	2.3564	16.4597	18.8161	0.2428	5.8700e-003	25.7336
Total	**0.6497**	**0.0590**	**1.4082**	**4.7000e-004**	**0.0000**	**0.0260**	**0.0260**	**0.0000**	**0.0260**	**0.0260**	**14.8672**	**192.0298**	**206.8969**	**0.8850**	**8.1100e-003**	**227.9954**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6443	0.0124	1.3884	1.7000e-004		0.0222	0.0222		0.0222	0.0222	1.8659	4.3970	6.2629	6.7800e-003	1.6000e-004	6.4535
Energy	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	171.1731	171.1731	6.3400e-003	2.0800e-003	171.9525
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.6449	0.0000	10.6449	0.6291	0.0000	23.8558
Water						0.0000	0.0000		0.0000	0.0000	2.3564	16.4597	18.8161	0.2427	5.8600e-003	25.7298
Total	**0.6497**	**0.0590**	**1.4082**	**4.7000e-004**	**0.0000**	**0.0260**	**0.0260**	**0.0000**	**0.0260**	**0.0260**	**14.8672**	**192.0298**	**206.8969**	**0.8849**	**8.1000e-003**	**227.9916**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.12**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 105,280; Residential Outdoor: 35,093; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	37.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.6100e-003	0.0592	0.1104	1.4000e-004	3.8300e-003	8.5000e-004	4.6900e-003	1.1000e-003	7.8000e-004	1.8800e-003	0.0000	12.4669	12.4669	1.0000e-004	0.0000	12.4690
Worker	0.0133	0.0183	0.1835	4.4000e-004	0.0336	3.1000e-004	0.0339	8.9300e-003	2.8000e-004	9.2100e-003	0.0000	33.4505	33.4505	1.7700e-003	0.0000	33.4877
Total	**0.0219**	**0.0775**	**0.2939**	**5.8000e-004**	**0.0374**	**1.1600e-003**	**0.0386**	**0.0100**	**1.0600e-003**	**0.0111**	**0.0000**	**45.9174**	**45.9174**	**1.8700e-003**	**0.0000**	**45.9567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.6100e-003	0.0592	0.1104	1.4000e-004	3.8300e-003	8.5000e-004	4.6900e-003	1.1000e-003	7.8000e-004	1.8800e-003	0.0000	12.4669	12.4669	1.0000e-004	0.0000	12.4690
Worker	0.0133	0.0183	0.1835	4.4000e-004	0.0336	3.1000e-004	0.0339	8.9300e-003	2.8000e-004	9.2100e-003	0.0000	33.4505	33.4505	1.7700e-003	0.0000	33.4877
Total	**0.0219**	**0.0775**	**0.2939**	**5.8000e-004**	**0.0374**	**1.1600e-003**	**0.0386**	**0.0100**	**1.0600e-003**	**0.0111**	**0.0000**	**45.9174**	**45.9174**	**1.8700e-003**	**0.0000**	**45.9567**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8151**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.7000e-004	1.7400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3164	0.3164	2.0000e-005	0.0000	0.3168
Total	**1.3000e-004**	**1.7000e-004**	**1.7400e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3164**	**0.3164**	**2.0000e-005**	**0.0000**	**0.3168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8133					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8151**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.7000e-004	1.7400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.3164	0.3164	2.0000e-005	0.0000	0.3168
Total	**1.3000e-004**	**1.7000e-004**	**1.7400e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3164**	**0.3164**	**2.0000e-005**	**0.0000**	**0.3168**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	117.3120	117.3120	5.3000e-003	1.1000e-003	117.7636
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	117.3120	117.3120	5.3000e-003	1.1000e-003	117.7636
NaturalGas Mitigated	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
NaturalGas Unmitigated	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.00932e+006	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
Total		**5.4400e-003**	**0.0465**	**0.0198**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8611**	**53.8611**	**1.0300e-003**	**9.9000e-004**	**54.1889**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.00932e+006	5.4400e-003	0.0465	0.0198	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8611	53.8611	1.0300e-003	9.9000e-004	54.1889
Total		**5.4400e-003**	**0.0465**	**0.0198**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8611**	**53.8611**	**1.0300e-003**	**9.9000e-004**	**54.1889**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	403257	117.3120	5.3000e-003	1.1000e-003	117.7636
Total		**117.3120**	**5.3000e-003**	**1.1000e-003**	**117.7636**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	403257	117.3120	5.3000e-003	1.1000e-003	117.7636
Total		**117.3120**	**5.3000e-003**	**1.1000e-003**	**117.7636**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6443	0.0124	1.3884	1.7000e-004		0.0222	0.0222		0.0222	0.0222	1.8659	4.3970	6.2629	6.7800e-003	1.6000e-004	6.4535
Unmitigated	0.6443	0.0124	1.3884	1.7000e-004		0.0222	0.0222		0.0222	0.0222	1.8659	4.3970	6.2629	6.7800e-003	1.6000e-004	6.4535

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0884	1.5000e-003	0.1265	1.1000e-004		0.0184	0.0184		0.0184	0.0184	1.8659	3.0143	4.8802	3.4600e-003	1.6000e-004	5.0012
Landscaping	0.0655	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Total	**0.6443**	**0.0124**	**1.3884**	**1.7000e-004**		**0.0222**	**0.0222**		**0.0222**	**0.0222**	**1.8659**	**4.3970**	**6.2629**	**6.7700e-003**	**1.6000e-004**	**6.4535**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4452					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0884	1.5000e-003	0.1265	1.1000e-004		0.0184	0.0184		0.0184	0.0184	1.8659	3.0143	4.8802	3.4600e-003	1.6000e-004	5.0012
Landscaping	0.0655	0.0109	1.2619	6.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.3827	1.3827	3.3100e-003	0.0000	1.4523
Total	**0.6443**	**0.0124**	**1.3884**	**1.7000e-004**		**0.0222**	**0.0222**		**0.0222**	**0.0222**	**1.8659**	**4.3970**	**6.2629**	**6.7700e-003**	**1.6000e-004**	**6.4535**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.8161	0.2427	5.8600e-003	25.7298
Unmitigated	18.8161	0.2428	5.8700e-003	25.7336

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.42756 / 4.68259	18.8161	0.2428	5.8700e-003	25.7336
Total		**18.8161**	**0.2428**	**5.8700e-003**	**25.7336**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	7.42756 / 4.68259	18.8161	0.2427	5.8600e-003	25.7298
Total		**18.8161**	**0.2427**	**5.8600e-003**	**25.7298**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.6449	0.6291	0.0000	23.8558
Unmitigated	10.6449	0.6291	0.0000	23.8558

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	52.44	10.6449	0.6291	0.0000	23.8558
Total		**10.6449**	**0.6291**	**0.0000**	**23.8558**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	52.44	10.6449	0.6291	0.0000	23.8558
Total		**10.6449**	**0.6291**	**0.0000**	**23.8558**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 16

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	1.88	1000sqft	0.04	1,875.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 5.333 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	5.33
tblVehicleTrips	SU_TR	1.21	5.33
tblVehicleTrips	WD_TR	27.49	5.33

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1037	0.7928	0.4973	7.0000e-004	2.4500e-003	0.0544	0.0568	8.2000e-004	0.0503	0.0511	0.0000	64.9164	64.9164	0.0184	0.0000	65.3024
Total	**0.1037**	**0.7928**	**0.4973**	**7.0000e-004**	**2.4500e-003**	**0.0544**	**0.0568**	**8.2000e-004**	**0.0503**	**0.0511**	**0.0000**	**64.9164**	**64.9164**	**0.0184**	**0.0000**	**65.3024**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.1037	0.7928	0.4973	7.0000e-004	2.4500e-003	0.0544	0.0568	8.2000e-004	0.0503	0.0511	0.0000	64.9164	64.9164	0.0184	0.0000	65.3024
Total	**0.1037**	**0.7928**	**0.4973**	**7.0000e-004**	**2.4500e-003**	**0.0544**	**0.0568**	**8.2000e-004**	**0.0503**	**0.0511**	**0.0000**	**64.9164**	**64.9164**	**0.0184**	**0.0000**	**65.3024**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005
Energy	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	8.3402	8.3402	3.1000e-004	1.0000e-004	8.3784
Mobile	0.0291	0.0513	0.3175	3.6000e-004	8.5300e-003	7.5000e-004	9.2900e-003	2.4800e-003	7.5000e-004	3.2300e-003	0.0000	13.6744	13.6744	2.2900e-003	0.0000	13.7225
Waste						0.0000	0.0000		0.0000	0.0000	0.4953	0.0000	0.4953	0.0293	0.0000	1.1100
Water						0.0000	0.0000		0.0000	0.0000	0.0293	0.2920	0.3213	3.0200e-003	7.0000e-005	0.4075
Total	**0.0389**	**0.0538**	**0.3197**	**3.7000e-004**	**8.5300e-003**	**9.4000e-004**	**9.4800e-003**	**2.4800e-003**	**9.4000e-004**	**3.4200e-003**	**0.5246**	**22.3067**	**22.8312**	**0.0349**	**1.7000e-004**	**23.6185**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.5000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005
Energy	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	8.3402	8.3402	3.1000e-004	1.0000e-004	8.3784
Mobile	0.0291	0.0513	0.3175	3.6000e-004	8.5300e-003	7.5000e-004	9.2900e-003	2.4800e-003	7.5000e-004	3.2300e-003	0.0000	13.6744	13.6744	2.2900e-003	0.0000	13.7225
Waste						0.0000	0.0000		0.0000	0.0000	0.4953	0.0000	0.4953	0.0293	0.0000	1.1100
Water						0.0000	0.0000		0.0000	0.0000	0.0293	0.2920	0.3213	3.0200e-003	7.0000e-005	0.4074
Total	**0.0389**	**0.0538**	**0.3197**	**3.7000e-004**	**8.5300e-003**	**9.4000e-004**	**9.4800e-003**	**2.4800e-003**	**9.4000e-004**	**3.4200e-003**	**0.5246**	**22.3067**	**22.8312**	**0.0349**	**1.7000e-004**	**23.6184**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,813; Non-Residential Outdoor: 938 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.0227**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.0227**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0291	0.0513	0.3175	3.6000e-004	8.5300e-003	7.5000e-004	9.2900e-003	2.4800e-003	7.5000e-004	3.2300e-003	0.0000	13.6744	13.6744	2.2900e-003	0.0000	13.7225
Unmitigated	0.0291	0.0513	0.3175	3.6000e-004	8.5300e-003	7.5000e-004	9.2900e-003	2.4800e-003	7.5000e-004	3.2300e-003	0.0000	13.6744	13.6744	2.2900e-003	0.0000	13.7225

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	10.00	10.00	10.00	25,394	25,394
Total	10.00	10.00	10.00	25,394	25,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.6237	5.6237	2.5000e-004	5.0000e-005	5.6453
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.6237	5.6237	2.5000e-004	5.0000e-005	5.6453
NaturalGas Mitigated	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7166	2.7166	5.0000e-005	5.0000e-005	2.7331
NaturalGas Unmitigated	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7166	2.7166	5.0000e-005	5.0000e-005	2.7331

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	50906.3	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7166	2.7166	5.0000e-005	5.0000e-005	2.7331
Total		**2.7000e-004**	**2.5000e-003**	**2.1000e-003**	**1.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**2.7166**	**2.7166**	**5.0000e-005**	**5.0000e-005**	**2.7331**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	50906.3	2.7000e-004	2.5000e-003	2.1000e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7166	2.7166	5.0000e-005	5.0000e-005	2.7331
Total		**2.7000e-004**	**2.5000e-003**	**2.1000e-003**	**1.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**2.7166**	**2.7166**	**5.0000e-005**	**5.0000e-005**	**2.7331**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	19331.2	5.6237	2.5000e-004	5.0000e-005	5.6453
Total		**5.6237**	**2.5000e-004**	**5.0000e-005**	**5.6453**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	19331.2	5.6237	2.5000e-004	5.0000e-005	5.6453
Total		**5.6237**	**2.5000e-004**	**5.0000e-005**	**5.6453**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.5000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	9.5000e-003	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005
Total	**9.4900e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	4.0000e-005
Total	**9.4900e-003**	**0.0000**	**3.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3213	3.0200e-003	7.0000e-005	0.4074
Unmitigated	0.3213	3.0200e-003	7.0000e-005	0.4075

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.0922122 / 0.144229	0.3213	3.0200e-003	7.0000e-005	0.4075
Total		**0.3213**	**3.0200e-003**	**7.0000e-005**	**0.4075**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	0.0922122 / 0.144229	0.3213	3.0200e-003	7.0000e-005	0.4074
Total		**0.3213**	**3.0200e-003**	**7.0000e-005**	**0.4074**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4953	0.0293	0.0000	1.1100
Unmitigated	0.4953	0.0293	0.0000	1.1100

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	2.44	0.4953	0.0293	0.0000	1.1100
Total		**0.4953**	**0.0293**	**0.0000**	**1.1100**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	2.44	0.4953	0.0293	0.0000	1.1100
Total		**0.4953**	**0.0293**	**0.0000**	**1.1100**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 17

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	81.00	Dwelling Unit	2.13	81,000.00	155

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Woodstoves - Assumed no fire places or wood stoves0

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	54,675.00	24,444.00
tblArchitecturalCoating	ConstArea_Residential_Interior	164,025.00	73,331.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	54320
tblAreaCoating	Area_Residential_Exterior	54675	0
tblAreaCoating	Area_Residential_Interior	164025	0
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	6.00	2.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	44.55	0.00
tblFireplaces	NumberNoFireplace	25.11	0.00
tblFireplaces	NumberWood	11.34	0.00
tblLandUse	Population	232.00	155.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2000
tblTripsAndVMT	VendorTripNumber	9.00	4.00
tblTripsAndVMT	WorkerTripNumber	58.00	26.00
tblTripsAndVMT	WorkerTripNumber	12.00	5.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.41	0.00
tblWoodstoves	NumberNoncatalytic	0.41	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6558	0.8188	0.5967	8.9000e-004	0.0152	0.0548	0.0700	4.2300e-003	0.0506	0.0548	0.0000	80.4859	80.4859	0.0190	0.0000	80.8853
Total	**0.6558**	**0.8188**	**0.5967**	**8.9000e-004**	**0.0152**	**0.0548**	**0.0700**	**4.2300e-003**	**0.0506**	**0.0548**	**0.0000**	**80.4859**	**80.4859**	**0.0190**	**0.0000**	**80.8853**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6558	0.8188	0.5967	8.9000e-004	0.0152	0.0548	0.0700	4.2300e-003	0.0506	0.0548	0.0000	80.4858	80.4858	0.0190	0.0000	80.8852
Total	**0.6558**	**0.8188**	**0.5967**	**8.9000e-004**	**0.0152**	**0.0548**	**0.0700**	**4.2300e-003**	**0.0506**	**0.0548**	**0.0000**	**80.4858**	**80.4858**	**0.0190**	**0.0000**	**80.8852**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3943	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319
Energy	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	113.8515	113.8515	4.3500e-003	1.3400e-003	114.3580
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.5634	0.0000	7.5634	0.4470	0.0000	16.9502
Water						0.0000	0.0000		0.0000	0.0000	1.6743	11.6950	13.3693	0.1725	4.1700e-003	18.2844
Total	**0.3974**	**0.0341**	**0.9078**	**2.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**9.2377**	**126.5290**	**135.7667**	**0.6262**	**5.5100e-003**	**150.6245**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3943	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319
Energy	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	113.8515	113.8515	4.3500e-003	1.3400e-003	114.3580
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.5634	0.0000	7.5634	0.4470	0.0000	16.9502
Water						0.0000	0.0000		0.0000	0.0000	1.6743	11.6950	13.3693	0.1725	4.1600e-003	18.2817
Total	**0.3974**	**0.0341**	**0.9078**	**2.2000e-004**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**0.0000**	**4.8500e-003**	**4.8500e-003**	**9.2377**	**126.5290**	**135.7667**	**0.6262**	**5.5000e-003**	**150.6218**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.18**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 73,331; Residential Outdoor: 24,444; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	26.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	4.6800e-003	6.4300e-003	0.0645	1.5000e-004	0.0118	1.1000e-004	0.0119	3.1400e-003	1.0000e-004	3.2400e-003	0.0000	11.7529	11.7529	6.2000e-004	0.0000	11.7660
Total	**7.5500e-003**	**0.0262**	**0.1013**	**2.0000e-004**	**0.0131**	**3.9000e-004**	**0.0135**	**3.5100e-003**	**3.6000e-004**	**3.8700e-003**	**0.0000**	**15.9085**	**15.9085**	**6.5000e-004**	**0.0000**	**15.9223**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	4.6800e-003	6.4300e-003	0.0645	1.5000e-004	0.0118	1.1000e-004	0.0119	3.1400e-003	1.0000e-004	3.2400e-003	0.0000	11.7529	11.7529	6.2000e-004	0.0000	11.7660
Total	**7.5500e-003**	**0.0262**	**0.1013**	**2.0000e-004**	**0.0131**	**3.9000e-004**	**0.0135**	**3.5100e-003**	**3.6000e-004**	**3.8700e-003**	**0.0000**	**15.9085**	**15.9085**	**6.5000e-004**	**0.0000**	**15.9223**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5665					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.5674**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	1.0000e-005	0.0000	0.1131
Total	**5.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1130**	**0.1130**	**1.0000e-005**	**0.0000**	**0.1131**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5665					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.5674**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	1.0000e-005	0.0000	0.1131
Total	**5.0000e-005**	**6.0000e-005**	**6.2000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1130**	**0.1130**	**1.0000e-005**	**0.0000**	**0.1131**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	83.3533	83.3533	3.7700e-003	7.8000e-004	83.6742
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	83.3533	83.3533	3.7700e-003	7.8000e-004	83.6742
NaturalGas Mitigated	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4983	30.4983	5.8000e-004	5.6000e-004	30.6839
NaturalGas Unmitigated	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4983	30.4983	5.8000e-004	5.6000e-004	30.6839

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	571516	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4983	30.4983	5.8000e-004	5.6000e-004	30.6839
Total		**3.0800e-003**	**0.0263**	**0.0112**	**1.7000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4983**	**30.4983**	**5.8000e-004**	**5.6000e-004**	**30.6839**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	571516	3.0800e-003	0.0263	0.0112	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4983	30.4983	5.8000e-004	5.6000e-004	30.6839
Total		**3.0800e-003**	**0.0263**	**0.0112**	**1.7000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4983**	**30.4983**	**5.8000e-004**	**5.6000e-004**	**30.6839**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	286525	83.3533	3.7700e-003	7.8000e-004	83.6742
Total		**83.3533**	**3.7700e-003**	**7.8000e-004**	**83.6742**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	286525	83.3533	3.7700e-003	7.8000e-004	83.6742
Total		**83.3533**	**3.7700e-003**	**7.8000e-004**	**83.6742**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3943	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319
Unmitigated	0.3943	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0315					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0465	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319
Total	**0.3943**	**7.7700e-003**	**0.8966**	**5.0000e-005**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**	**0.0000**	**0.9824**	**0.9824**	**2.3500e-003**	**0.0000**	**1.0319**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0315					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0465	7.7700e-003	0.8966	5.0000e-005		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	0.9824	0.9824	2.3500e-003	0.0000	1.0319
Total	**0.3943**	**7.7700e-003**	**0.8966**	**5.0000e-005**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**	**0.0000**	**0.9824**	**0.9824**	**2.3500e-003**	**0.0000**	**1.0319**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.3693	0.1725	4.1600e-003	18.2817
Unmitigated	13.3693	0.1725	4.1700e-003	18.2844

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.27748 / 3.3271	13.3693	0.1725	4.1700e-003	18.2844
Total		**13.3693**	**0.1725**	**4.1700e-003**	**18.2844**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.27748 / 3.3271	13.3693	0.1725	4.1600e-003	18.2817
Total		**13.3693**	**0.1725**	**4.1600e-003**	**18.2817**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.5634	0.4470	0.0000	16.9502
Unmitigated	7.5634	0.4470	0.0000	16.9502

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	37.26	7.5634	0.4470	0.0000	16.9502
Total		**7.5634**	**0.4470**	**0.0000**	**16.9502**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	37.26	7.5634	0.4470	0.0000	16.9502
Total		**7.5634**	**0.4470**	**0.0000**	**16.9502**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 20

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	65.00	Dwelling Unit	1.71	65,000.00	129

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Dwelling unit amount and population adjusted according to updated information provided in Table A-1.

Vehicle Trips - Vehicle trips are based on project specific traffic study there are no non-shuttle vehicle trips. Shuttle trip emissions estimated separately.

Area Coating -

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Woodstoves - Assumed no fireplaces or woodstoves

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	43,875.00	45,748.00
tblArchitecturalCoating	ConstArea_Residential_Interior	131,625.00	137,244.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_Nonresidential_Interior	0	101663
tblAreaCoating	Area_Residential_Exterior	43875	0
tblAreaCoating	Area_Residential_Interior	131625	0
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24NG	7,191.67	5,393.75
tblFireplaces	NumberGas	35.75	0.00
tblFireplaces	NumberNoFireplace	20.15	0.00
tblFireplaces	NumberWood	9.10	0.00
tblLandUse	Population	186.00	129.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	47.00	49.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblWoodstoves	NumberCatalytic	0.33	0.00
tblWoodstoves	NumberNoncatalytic	0.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.4618	2.5776	2.1695	3.3400e-003	0.0670	0.1641	0.2311	0.0218	0.1575	0.1792	0.0000	281.2880	281.2880	0.0524	0.0000	282.3882
Total	**1.4618**	**2.5776**	**2.1695**	**3.3400e-003**	**0.0670**	**0.1641**	**0.2311**	**0.0218**	**0.1575**	**0.1792**	**0.0000**	**281.2880**	**281.2880**	**0.0524**	**0.0000**	**282.3882**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.4618	2.5776	2.1695	3.3400e-003	0.0670	0.1641	0.2311	0.0218	0.1575	0.1792	0.0000	281.2878	281.2878	0.0524	0.0000	282.3879
Total	**1.4618**	**2.5776**	**2.1695**	**3.3400e-003**	**0.0670**	**0.1641**	**0.2311**	**0.0218**	**0.1575**	**0.1792**	**0.0000**	**281.2878**	**281.2878**	**0.0524**	**0.0000**	**282.3879**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3370	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149
Energy	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	91.3623	91.3623	3.4900e-003	1.0700e-003	91.7688
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	6.0694	0.0000	6.0694	0.3587	0.0000	13.6020
Water						0.0000	0.0000		0.0000	0.0000	1.3436	9.3849	10.7285	0.1384	3.3500e-003	14.6727
Total	**0.3394**	**0.0287**	**0.5687**	**1.6000e-004**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**7.4130**	**101.5356**	**108.9486**	**0.5019**	**4.4200e-003**	**120.8583**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3370	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149
Energy	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	91.3623	91.3623	3.4900e-003	1.0700e-003	91.7688
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	6.0694	0.0000	6.0694	0.3587	0.0000	13.6020
Water						0.0000	0.0000		0.0000	0.0000	1.3436	9.3849	10.7285	0.1384	3.3400e-003	14.6705
Total	**0.3394**	**0.0287**	**0.5687**	**1.6000e-004**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**7.4130**	**101.5356**	**108.9486**	**0.5018**	**4.4100e-003**	**120.8562**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.23**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 137,244; Residential Outdoor: 45,748; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	49.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0101	0.0691	0.1288	1.6000e-004	4.4700e-003	1.0000e-003	5.4700e-003	1.2800e-003	9.1000e-004	2.2000e-003	0.0000	14.5447	14.5447	1.2000e-004	0.0000	14.5471
Worker	0.0177	0.0242	0.2430	5.8000e-004	0.0445	4.1000e-004	0.0449	0.0118	3.7000e-004	0.0122	0.0000	44.2993	44.2993	2.3500e-003	0.0000	44.3486
Total	**0.0277**	**0.0933**	**0.3718**	**7.4000e-004**	**0.0489**	**1.4100e-003**	**0.0503**	**0.0131**	**1.2800e-003**	**0.0144**	**0.0000**	**58.8440**	**58.8440**	**2.4700e-003**	**0.0000**	**58.8957**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0101	0.0691	0.1288	1.6000e-004	4.4700e-003	1.0000e-003	5.4700e-003	1.2800e-003	9.1000e-004	2.2000e-003	0.0000	14.5447	14.5447	1.2000e-004	0.0000	14.5471
Worker	0.0177	0.0242	0.2430	5.8000e-004	0.0445	4.1000e-004	0.0449	0.0118	3.7000e-004	0.0122	0.0000	44.2993	44.2993	2.3500e-003	0.0000	44.3486
Total	**0.0277**	**0.0933**	**0.3718**	**7.4000e-004**	**0.0489**	**1.4100e-003**	**0.0503**	**0.0131**	**1.2800e-003**	**0.0144**	**0.0000**	**58.8440**	**58.8440**	**2.4700e-003**	**0.0000**	**58.8957**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**1.0621**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0602					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**1.0621**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	66.8884	66.8884	3.0200e-003	6.3000e-004	67.1459
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	66.8884	66.8884	3.0200e-003	6.3000e-004	67.1459
NaturalGas Mitigated	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.4739	24.4739	4.7000e-004	4.5000e-004	24.6229
NaturalGas Unmitigated	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.4739	24.4739	4.7000e-004	4.5000e-004	24.6229

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	458624	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.4739	24.4739	4.7000e-004	4.5000e-004	24.6229
Total		**2.4700e-003**	**0.0211**	**8.9900e-003**	**1.3000e-004**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**24.4739**	**24.4739**	**4.7000e-004**	**4.5000e-004**	**24.6229**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	458624	2.4700e-003	0.0211	8.9900e-003	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.4739	24.4739	4.7000e-004	4.5000e-004	24.6229
Total		**2.4700e-003**	**0.0211**	**8.9900e-003**	**1.3000e-004**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.0000**	**24.4739**	**24.4739**	**4.7000e-004**	**4.5000e-004**	**24.6229**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	229927	66.8884	3.0200e-003	6.3000e-004	67.1459
Total		**66.8884**	**3.0200e-003**	**6.3000e-004**	**67.1459**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	229927	66.8884	3.0200e-003	6.3000e-004	67.1459
Total		**66.8884**	**3.0200e-003**	**6.3000e-004**	**67.1459**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3370	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149
Unmitigated	0.3370	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0242	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149
Total	**0.3370**	**7.6100e-003**	**0.5597**	**3.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**	**0.0000**	**0.7884**	**0.7884**	**1.2600e-003**	**0.0000**	**0.8149**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0589					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0242	7.6100e-003	0.5597	3.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003	0.0000	0.7884	0.7884	1.2600e-003	0.0000	0.8149
Total	**0.3370**	**7.6100e-003**	**0.5597**	**3.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.3600e-003**	**2.3600e-003**	**0.0000**	**0.7884**	**0.7884**	**1.2600e-003**	**0.0000**	**0.8149**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.7285	0.1384	3.3400e-003	14.6705
Unmitigated	10.7285	0.1384	3.3500e-003	14.6727

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.23501 / 2.6699	10.7285	0.1384	3.3500e-003	14.6727
Total		**10.7285**	**0.1384**	**3.3500e-003**	**14.6727**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	4.23501 / 2.6699	10.7285	0.1384	3.3400e-003	14.6705
Total		**10.7285**	**0.1384**	**3.3400e-003**	**14.6705**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.0694	0.3587	0.0000	13.6020
Unmitigated	6.0694	0.3587	0.0000	13.6020

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	29.9	6.0694	0.3587	0.0000	13.6020
Total		**6.0694**	**0.3587**	**0.0000**	**13.6020**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	29.9	6.0694	0.3587	0.0000	13.6020
Total		**6.0694**	**0.3587**	**0.0000**	**13.6020**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 27

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	147.51	1000sqft	3.39	147,509.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.407 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	4.41
tblVehicleTrips	SU_TR	1.21	4.41
tblVehicleTrips	WD_TR	27.49	4.41

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5242	4.3029	3.5336	5.1700e-003	0.1553	0.2678	0.4231	0.0610	0.2511	0.3121	0.0000	456.6521	456.6521	0.0887	0.0000	458.5144
2017	1.7317	0.2010	0.1672	2.7000e-004	3.3300e-003	0.0125	0.0158	8.9000e-004	0.0116	0.0125	0.0000	23.5263	23.5263	5.5500e-003	0.0000	23.6429
Total	**2.2559**	**4.5039**	**3.7007**	**5.4400e-003**	**0.1586**	**0.2803**	**0.4389**	**0.0619**	**0.2627**	**0.3246**	**0.0000**	**480.1784**	**480.1784**	**0.0942**	**0.0000**	**482.1573**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5242	4.3029	3.5336	5.1700e-003	0.1553	0.2678	0.4231	0.0610	0.2511	0.3121	0.0000	456.6518	456.6518	0.0887	0.0000	458.5140
2017	1.7317	0.2010	0.1672	2.7000e-004	3.3300e-003	0.0125	0.0158	8.9000e-004	0.0116	0.0125	0.0000	23.5262	23.5262	5.5500e-003	0.0000	23.6428
Total	**2.2559**	**4.5039**	**3.7007**	**5.4400e-003**	**0.1586**	**0.2803**	**0.4389**	**0.0619**	**0.2627**	**0.3246**	**0.0000**	**480.1780**	**480.1780**	**0.0942**	**0.0000**	**482.1569**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7476	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003
Energy	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	656.1384	656.1384	0.0241	8.0600e-003	659.1422
Mobile	4.1325	5.3175	48.4082	0.3580	0.5548	0.0622	0.6169	0.1611	0.0622	0.2233	0.0000	866.7311	866.7311	0.2778	0.0000	872.5647
Waste						0.0000	0.0000		0.0000	0.0000	38.9256	0.0000	38.9256	2.3004	0.0000	87.2347
Water						0.0000	0.0000		0.0000	0.0000	2.2954	22.9116	25.2070	0.2368	5.7800e-003	31.9719
Total	**4.9016**	**5.5139**	**48.5776**	**0.3591**	**0.5548**	**0.0771**	**0.6319**	**0.1611**	**0.0771**	**0.2382**	**41.2210**	**1,545.7837**	**1,587.0047**	**2.8392**	**0.0138**	**1,650.9172**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7476	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003
Energy	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	656.1384	656.1384	0.0241	8.0600e-003	659.1422
Mobile	4.1325	5.3175	48.4082	0.3580	0.5548	0.0622	0.6169	0.1611	0.0622	0.2233	0.0000	866.7311	866.7311	0.2778	0.0000	872.5647
Waste						0.0000	0.0000		0.0000	0.0000	38.9256	0.0000	38.9256	2.3004	0.0000	87.2347
Water						0.0000	0.0000		0.0000	0.0000	2.2954	22.9116	25.2070	0.2368	5.7700e-003	31.9682
Total	**4.9016**	**5.5139**	**48.5776**	**0.3591**	**0.5548**	**0.0771**	**0.6319**	**0.1611**	**0.0771**	**0.2382**	**41.2210**	**1,545.7837**	**1,587.0047**	**2.8391**	**0.0138**	**1,650.9135**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2017	5	230	
5	Paving	Paving	1/4/2017	1/27/2017	5	18	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 221,264; Non-Residential Outdoor: 73,755 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	62.00	24.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**		**0.0229**	**0.0229**		**0.0214**	**0.0214**	**0.0000**	**37.0974**	**37.0974**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.4000e-004	7.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.3561	1.3561	7.0000e-005	0.0000	1.3576
Total	**5.4000e-004**	**7.4000e-004**	**7.4400e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.3561**	**1.3561**	**7.0000e-005**	**0.0000**	**1.3576**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**		**0.0229**	**0.0229**		**0.0214**	**0.0214**	**0.0000**	**37.0973**	**37.0973**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.4000e-004	7.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.3561	1.3561	7.0000e-005	0.0000	1.3576
Total	**5.4000e-004**	**7.4000e-004**	**7.4400e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.3561**	**1.3561**	**7.0000e-005**	**0.0000**	**1.3576**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	**0.0127**	**0.1366**	**0.1028**	**1.0000e-004**	**0.0452**	**7.3500e-003**	**0.0525**	**0.0248**	**6.7600e-003**	**0.0316**	**0.0000**	**9.2193**	**9.2193**	**2.7800e-003**	**0.0000**	**9.2777**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	**0.0127**	**0.1366**	**0.1028**	**1.0000e-004**	**0.0452**	**7.3500e-003**	**0.0525**	**0.0248**	**6.7600e-003**	**0.0316**	**0.0000**	**9.2193**	**9.2193**	**2.7800e-003**	**0.0000**	**9.2777**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2266	11.2266	3.3900e-003	0.0000	11.2977
Total	**0.0147**	**0.1538**	**0.1043**	**1.2000e-004**	**0.0262**	**8.7900e-003**	**0.0350**	**0.0135**	**8.0900e-003**	**0.0216**	**0.0000**	**11.2266**	**11.2266**	**3.3900e-003**	**0.0000**	**11.2977**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.0000e-004	2.9800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5424	0.5424	3.0000e-005	0.0000	0.5430
Total	**2.2000e-004**	**3.0000e-004**	**2.9800e-003**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**5.5000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5424**	**0.5424**	**3.0000e-005**	**0.0000**	**0.5430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2265	11.2265	3.3900e-003	0.0000	11.2977
Total	**0.0147**	**0.1538**	**0.1043**	**1.2000e-004**	**0.0262**	**8.7900e-003**	**0.0350**	**0.0135**	**8.0900e-003**	**0.0216**	**0.0000**	**11.2265**	**11.2265**	**3.3900e-003**	**0.0000**	**11.2977**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.0000e-004	2.9800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5424	0.5424	3.0000e-005	0.0000	0.5430
Total	**2.2000e-004**	**3.0000e-004**	**2.9800e-003**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**5.5000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5424**	**0.5424**	**3.0000e-005**	**0.0000**	**0.5430**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0551	276.0551	0.0685	0.0000	277.4929
Total	**0.3883**	**3.2497**	**2.1098**	**3.0600e-003**		**0.2243**	**0.2243**		**0.2107**	**0.2107**	**0.0000**	**276.0551**	**276.0551**	**0.0685**	**0.0000**	**277.4929**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0393	0.2700	0.5032	6.3000e-004	0.0175	3.8900e-003	0.0214	5.0100e-003	3.5800e-003	8.5800e-003	0.0000	56.8490	56.8490	4.5000e-004	0.0000	56.8585
Worker	0.0255	0.0350	0.3505	8.4000e-004	0.0641	5.9000e-004	0.0647	0.0171	5.4000e-004	0.0176	0.0000	63.8995	63.8995	3.3900e-003	0.0000	63.9706
Total	**0.0648**	**0.3050**	**0.8538**	**1.4700e-003**	**0.0816**	**4.4800e-003**	**0.0861**	**0.0221**	**4.1200e-003**	**0.0262**	**0.0000**	**120.7485**	**120.7485**	**3.8400e-003**	**0.0000**	**120.8291**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0548	276.0548	0.0685	0.0000	277.4926
Total	**0.3883**	**3.2497**	**2.1098**	**3.0600e-003**		**0.2243**	**0.2243**		**0.2107**	**0.2107**	**0.0000**	**276.0548**	**276.0548**	**0.0685**	**0.0000**	**277.4926**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0393	0.2700	0.5032	6.3000e-004	0.0175	3.8900e-003	0.0214	5.0100e-003	3.5800e-003	8.5800e-003	0.0000	56.8490	56.8490	4.5000e-004	0.0000	56.8585
Worker	0.0255	0.0350	0.3505	8.4000e-004	0.0641	5.9000e-004	0.0647	0.0171	5.4000e-004	0.0176	0.0000	63.8995	63.8995	3.3900e-003	0.0000	63.9706
Total	**0.0648**	**0.3050**	**0.8538**	**1.4700e-003**	**0.0816**	**4.4800e-003**	**0.0861**	**0.0221**	**4.1200e-003**	**0.0262**	**0.0000**	**120.7485**	**120.7485**	**3.8400e-003**	**0.0000**	**120.8291**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-003	0.0264	0.0181	3.0000e-005		1.7800e-003	1.7800e-003		1.6700e-003	1.6700e-003	0.0000	2.3948	2.3948	5.9000e-004	0.0000	2.4072
Total	**3.1000e-003**	**0.0264**	**0.0181**	**3.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**2.3948**	**2.3948**	**5.9000e-004**	**0.0000**	**2.4072**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	2.1300e-003	4.1700e-003	1.0000e-005	1.5000e-004	3.0000e-005	1.8000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.4912	0.4912	0.0000	0.0000	0.4913
Worker	2.0000e-004	2.8000e-004	2.7800e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5391	0.5391	3.0000e-005	0.0000	0.5397
Total	**5.1000e-004**	**2.4100e-003**	**6.9500e-003**	**2.0000e-005**	**7.1000e-004**	**3.0000e-005**	**7.5000e-004**	**1.9000e-004**	**3.0000e-005**	**2.2000e-004**	**0.0000**	**1.0303**	**1.0303**	**3.0000e-005**	**0.0000**	**1.0309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-003	0.0264	0.0181	3.0000e-005		1.7800e-003	1.7800e-003		1.6700e-003	1.6700e-003	0.0000	2.3948	2.3948	5.9000e-004	0.0000	2.4072
Total	**3.1000e-003**	**0.0264**	**0.0181**	**3.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**2.3948**	**2.3948**	**5.9000e-004**	**0.0000**	**2.4072**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1000e-004	2.1300e-003	4.1700e-003	1.0000e-005	1.5000e-004	3.0000e-005	1.8000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.4912	0.4912	0.0000	0.0000	0.4913
Worker	2.0000e-004	2.8000e-004	2.7800e-003	1.0000e-005	5.6000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5391	0.5391	3.0000e-005	0.0000	0.5397
Total	**5.1000e-004**	**2.4100e-003**	**6.9500e-003**	**2.0000e-005**	**7.1000e-004**	**3.0000e-005**	**7.5000e-004**	**1.9000e-004**	**3.0000e-005**	**2.2000e-004**	**0.0000**	**1.0303**	**1.0303**	**3.0000e-005**	**0.0000**	**1.0309**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.1512	0.1124	1.7000e-004		9.0500e-003	9.0500e-003		8.3400e-003	8.3400e-003	0.0000	15.2992	15.2992	4.5600e-003	0.0000	15.3950
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1512**	**0.1124**	**1.7000e-004**		**9.0500e-003**	**9.0500e-003**		**8.3400e-003**	**8.3400e-003**	**0.0000**	**15.2992**	**15.2992**	**4.5600e-003**	**0.0000**	**15.3950**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.1000e-004	8.0700e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.3000e-004	1.0000e-005	4.5000e-004	0.0000	1.5651	1.5651	8.0000e-005	0.0000	1.5668
Total	**5.9000e-004**	**8.1000e-004**	**8.0700e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6500e-003**	**4.3000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5651**	**1.5651**	**8.0000e-005**	**0.0000**	**1.5668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.1512	0.1124	1.7000e-004		9.0500e-003	9.0500e-003		8.3400e-003	8.3400e-003	0.0000	15.2991	15.2991	4.5600e-003	0.0000	15.3950
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1512**	**0.1124**	**1.7000e-004**		**9.0500e-003**	**9.0500e-003**		**8.3400e-003**	**8.3400e-003**	**0.0000**	**15.2991**	**15.2991**	**4.5600e-003**	**0.0000**	**15.3950**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.1000e-004	8.0700e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.3000e-004	1.0000e-005	4.5000e-004	0.0000	1.5651	1.5651	8.0000e-005	0.0000	1.5668
Total	**5.9000e-004**	**8.1000e-004**	**8.0700e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6500e-003**	**4.3000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5651**	**1.5651**	**8.0000e-005**	**0.0000**	**1.5668**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0197	0.0168	3.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	2.2979	2.2979	2.4000e-004	0.0000	2.3030
Total	**1.7123**	**0.0197**	**0.0168**	**3.0000e-005**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**2.2979**	**2.2979**	**2.4000e-004**	**0.0000**	**2.3030**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	4.8000e-004	4.8400e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9390	0.9390	5.0000e-005	0.0000	0.9401
Total	**3.5000e-004**	**4.8000e-004**	**4.8400e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9390**	**0.9390**	**5.0000e-005**	**0.0000**	**0.9401**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0197	0.0168	3.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	2.2979	2.2979	2.4000e-004	0.0000	2.3030
Total	**1.7123**	**0.0197**	**0.0168**	**3.0000e-005**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**2.2979**	**2.2979**	**2.4000e-004**	**0.0000**	**2.3030**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	4.8000e-004	4.8400e-003	1.0000e-005	9.8000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9390	0.9390	5.0000e-005	0.0000	0.9401
Total	**3.5000e-004**	**4.8000e-004**	**4.8400e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9390**	**0.9390**	**5.0000e-005**	**0.0000**	**0.9401**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.1325	5.3175	48.4082	0.3580	0.5548	0.0622	0.6169	0.1611	0.0622	0.2233	0.0000	866.7311	866.7311	0.2778	0.0000	872.5647
Unmitigated	4.1325	5.3175	48.4082	0.3580	0.5548	0.0622	0.6169	0.1611	0.0622	0.2233	0.0000	866.7311	866.7311	0.2778	0.0000	872.5647

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	650.07	650.07	650.07	1,650,882	1,650,882
Total	650.07	650.07	650.07	1,650,882	1,650,882

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	442.4233	442.4233	0.0200	4.1400e-003	444.1265
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	442.4233	442.4233	0.0200	4.1400e-003	444.1265
NaturalGas Mitigated	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.7151	213.7151	4.1000e-003	3.9200e-003	215.0157
NaturalGas Unmitigated	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.7151	213.7151	4.1000e-003	3.9200e-003	215.0157

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	4.00487e+006	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.7151	213.7151	4.1000e-003	3.9200e-003	215.0157
Total		**0.0216**	**0.1963**	**0.1649**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.7151**	**213.7151**	**4.1000e-003**	**3.9200e-003**	**215.0157**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	4.00487e+006	0.0216	0.1963	0.1649	1.1800e-003		0.0149	0.0149		0.0149	0.0149	0.0000	213.7151	213.7151	4.1000e-003	3.9200e-003	215.0157
Total		**0.0216**	**0.1963**	**0.1649**	**1.1800e-003**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**213.7151**	**213.7151**	**4.1000e-003**	**3.9200e-003**	**215.0157**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.52082e+006	442.4233	0.0200	4.1400e-003	444.1265
Total		**442.4233**	**0.0200**	**4.1400e-003**	**444.1265**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.52082e +006	442.4233	0.0200	4.1400e-003	444.1265
Total		**442.4233**	**0.0200**	**4.1400e-003**	**444.1265**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7476	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003
Unmitigated	0.7476	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1709					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.8000e-004	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003
Total	**0.7476**	**2.0000e-005**	**4.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.6400e-003**	**2.6400e-003**	**5.0000e-005**	**0.0000**	**3.6800e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1709					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.8000e-004	2.0000e-005	4.4200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.6400e-003	2.6400e-003	5.0000e-005	0.0000	3.6800e-003
Total	**0.7476**	**2.0000e-005**	**4.4200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.6400e-003**	**2.6400e-003**	**5.0000e-005**	**0.0000**	**3.6800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	25.2070	0.2368	5.7700e-003	31.9682
Unmitigated	25.2070	0.2368	5.7800e-003	31.9719

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	7.23522 / 11.3166	25.2070	0.2368	5.7800e-003	31.9719
Total		**25.2070**	**0.2368**	**5.7800e-003**	**31.9719**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	7.23522 / 11.3166	25.2070	0.2368	5.7700e-003	31.9682
Total		**25.2070**	**0.2368**	**5.7700e-003**	**31.9682**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	38.9256	2.3004	0.0000	87.2347
Unmitigated	38.9256	2.3004	0.0000	87.2347

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	191.76	38.9256	2.3004	0.0000	87.2347
Total		**38.9256**	**2.3004**	**0.0000**	**87.2347**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	191.76	38.9256	2.3004	0.0000	87.2347
Total		**38.9256**	**2.3004**	**0.0000**	**87.2347**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 23

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	37.73	1000sqft	0.87	37,730.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2000
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.506 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 4/19/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2000
tblVehicleTrips	ST_TR	11.23	6.36
tblVehicleTrips	SU_TR	1.21	6.36
tblVehicleTrips	WD_TR	27.49	6.36

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5262	0.8262	0.5900	8.6000e-004	0.0112	0.0549	0.0661	3.2000e-003	0.0507	0.0539	0.0000	77.9982	77.9982	0.0188	0.0000	78.3928
Total	**0.5262**	**0.8262**	**0.5900**	**8.6000e-004**	**0.0112**	**0.0549**	**0.0661**	**3.2000e-003**	**0.0507**	**0.0539**	**0.0000**	**77.9982**	**77.9982**	**0.0188**	**0.0000**	**78.3928**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5262	0.8262	0.5900	8.6000e-004	0.0112	0.0549	0.0661	3.2000e-003	0.0507	0.0539	0.0000	77.9981	77.9981	0.0188	0.0000	78.3928
Total	**0.5262**	**0.8262**	**0.5900**	**8.6000e-004**	**0.0112**	**0.0549**	**0.0661**	**3.2000e-003**	**0.0507**	**0.0539**	**0.0000**	**77.9981**	**77.9981**	**0.0188**	**0.0000**	**78.3928**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1912	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004
Energy	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	167.8277	167.8277	6.1600e-003	2.0600e-003	168.5961
Mobile	0.6985	1.2306	7.6198	8.7300e-003	0.2048	0.0181	0.2229	0.0594	0.0181	0.0775	0.0000	328.1550	328.1550	0.0550	0.0000	329.3103
Waste						0.0000	0.0000		0.0000	0.0000	9.9567	0.0000	9.9567	0.5884	0.0000	22.3136
Water						0.0000	0.0000		0.0000	0.0000	0.5871	5.8603	6.4474	0.0606	1.4800e-003	8.1777
Total	**0.8952**	**1.2808**	**7.6626**	**9.0300e-003**	**0.2048**	**0.0219**	**0.2267**	**0.0594**	**0.0219**	**0.0814**	**10.5438**	**501.8437**	**512.3876**	**0.7102**	**3.5400e-003**	**528.3985**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1912	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004
Energy	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	167.8277	167.8277	6.1600e-003	2.0600e-003	168.5961
Mobile	0.6985	1.2306	7.6198	8.7300e-003	0.2048	0.0181	0.2229	0.0594	0.0181	0.0775	0.0000	328.1550	328.1550	0.0550	0.0000	329.3103
Waste						0.0000	0.0000		0.0000	0.0000	9.9567	0.0000	9.9567	0.5884	0.0000	22.3136
Water						0.0000	0.0000		0.0000	0.0000	0.5871	5.8603	6.4474	0.0606	1.4800e-003	8.1768
Total	**0.8952**	**1.2808**	**7.6626**	**9.0300e-003**	**0.2048**	**0.0219**	**0.2267**	**0.0594**	**0.0219**	**0.0814**	**10.5438**	**501.8437**	**512.3876**	**0.7102**	**3.5400e-003**	**528.3975**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 56,595; Non-Residential Outdoor: 18,865 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.0296	0.0552	7.0000e-005	1.9200e-003	4.3000e-004	2.3400e-003	5.5000e-004	3.9000e-004	9.4000e-004	0.0000	6.2334	6.2334	5.0000e-005	0.0000	6.2345
Worker	2.8800e-003	3.9600e-003	0.0397	9.0000e-005	7.2600e-003	7.0000e-005	7.3200e-003	1.9300e-003	6.0000e-005	1.9900e-003	0.0000	7.2325	7.2325	3.8000e-004	0.0000	7.2406
Total	**7.1900e-003**	**0.0336**	**0.0949**	**1.6000e-004**	**9.1800e-003**	**5.0000e-004**	**9.6600e-003**	**2.4800e-003**	**4.5000e-004**	**2.9300e-003**	**0.0000**	**13.4660**	**13.4660**	**4.3000e-004**	**0.0000**	**13.4751**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.0296	0.0552	7.0000e-005	1.9200e-003	4.3000e-004	2.3400e-003	5.5000e-004	3.9000e-004	9.4000e-004	0.0000	6.2334	6.2334	5.0000e-005	0.0000	6.2345
Worker	2.8800e-003	3.9600e-003	0.0397	9.0000e-005	7.2600e-003	7.0000e-005	7.3200e-003	1.9300e-003	6.0000e-005	1.9900e-003	0.0000	7.2325	7.2325	3.8000e-004	0.0000	7.2406
Total	**7.1900e-003**	**0.0336**	**0.0949**	**1.6000e-004**	**9.1800e-003**	**5.0000e-004**	**9.6600e-003**	**2.4800e-003**	**4.5000e-004**	**2.9300e-003**	**0.0000**	**13.4660**	**13.4660**	**4.3000e-004**	**0.0000**	**13.4751**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.4381**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0678	0.0678	0.0000	0.0000	0.0679
Total	**3.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0678**	**0.0678**	**0.0000**	**0.0000**	**0.0679**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.4381**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	3.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0678	0.0678	0.0000	0.0000	0.0679
Total	**3.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0678**	**0.0678**	**0.0000**	**0.0000**	**0.0679**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6985	1.2306	7.6198	8.7300e-003	0.2048	0.0181	0.2229	0.0594	0.0181	0.0775	0.0000	328.1550	328.1550	0.0550	0.0000	329.3103
Unmitigated	0.6985	1.2306	7.6198	8.7300e-003	0.2048	0.0181	0.2229	0.0594	0.0181	0.0775	0.0000	328.1550	328.1550	0.0550	0.0000	329.3103

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	239.96	239.96	239.96	609,394	609,394
Total	239.96	239.96	239.96	609,394	609,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.630142	0.126516	0.135380	0.044811	0.004048	0.008281	0.028653	0.003029	0.001699	0.010368	0.005318	0.000926	0.000829

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.1635	113.1635	5.1200e-003	1.0600e-003	113.5991
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.1635	113.1635	5.1200e-003	1.0600e-003	113.5991
NaturalGas Mitigated	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.6643	54.6643	1.0500e-003	1.0000e-003	54.9969
NaturalGas Unmitigated	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.6643	54.6643	1.0500e-003	1.0000e-003	54.9969

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.02437e+006	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.6643	54.6643	1.0500e-003	1.0000e-003	54.9969
Total		**5.5200e-003**	**0.0502**	**0.0422**	**3.0000e-004**		**3.8200e-003**	**3.8200e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**54.6643**	**54.6643**	**1.0500e-003**	**1.0000e-003**	**54.9969**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.02437e+006	5.5200e-003	0.0502	0.0422	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.6643	54.6643	1.0500e-003	1.0000e-003	54.9969
Total		**5.5200e-003**	**0.0502**	**0.0422**	**3.0000e-004**		**3.8200e-003**	**3.8200e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**54.6643**	**54.6643**	**1.0500e-003**	**1.0000e-003**	**54.9969**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	388996	113.1635	5.1200e-003	1.0600e-003	113.5991
Total		**113.1635**	**5.1200e-003**	**1.0600e-003**	**113.5991**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	388996	113.1635	5.1200e-003	1.0600e-003	113.5991
Total		**113.1635**	**5.1200e-003**	**1.0600e-003**	**113.5991**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1912	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004
Unmitigated	0.1912	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004
Total	**0.1912**	**0.0000**	**6.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**0.0000**	**7.7000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0437					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	0.0000	6.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.7000e-004	6.7000e-004	0.0000	0.0000	7.7000e-004
Total	**0.1912**	**0.0000**	**6.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.7000e-004**	**6.7000e-004**	**0.0000**	**0.0000**	**7.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.4474	0.0606	1.4800e-003	8.1768
Unmitigated	6.4474	0.0606	1.4800e-003	8.1777

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.85062 / 2.89456	6.4474	0.0606	1.4800e-003	8.1777
Total		**6.4474**	**0.0606**	**1.4800e-003**	**8.1777**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.85062 / 2.89456	6.4474	0.0606	1.4800e-003	8.1768
Total		**6.4474**	**0.0606**	**1.4800e-003**	**8.1768**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.9567	0.5884	0.0000	22.3136
Unmitigated	9.9567	0.5884	0.0000	22.3136

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	49.05	9.9567	0.5884	0.0000	22.3136
Total		**9.9567**	**0.5884**	**0.0000**	**22.3136**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	49.05	9.9567	0.5884	0.0000	22.3136
Total		**9.9567**	**0.5884**	**0.0000**	**22.3136**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 28

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	190.07	1000sqft	4.36	190,066.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	1990
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 4.367 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	1990
tblVehicleTrips	ST_TR	11.23	4.37
tblVehicleTrips	SU_TR	1.21	4.37
tblVehicleTrips	WD_TR	27.49	4.37

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5431	4.3918	3.7821	5.6000e-003	0.1790	0.2692	0.4482	0.0674	0.2523	0.3197	0.0000	491.7846	491.7846	0.0898	0.0000	493.6703
2017	2.2251	0.2019	0.1708	2.8000e-004	3.8600e-003	0.0125	0.0163	1.0300e-003	0.0116	0.0127	0.0000	24.1390	24.1390	5.5800e-003	0.0000	24.2562
Total	**2.7682**	**4.5936**	**3.9529**	**5.8800e-003**	**0.1829**	**0.2816**	**0.4645**	**0.0684**	**0.2639**	**0.3323**	**0.0000**	**515.9236**	**515.9236**	**0.0954**	**0.0000**	**517.9264**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5431	4.3918	3.7821	5.6000e-003	0.1790	0.2692	0.4482	0.0674	0.2523	0.3197	0.0000	491.7842	491.7842	0.0898	0.0000	493.6699
2017	2.2251	0.2019	0.1708	2.8000e-004	3.8600e-003	0.0125	0.0163	1.0300e-003	0.0116	0.0127	0.0000	24.1390	24.1390	5.5800e-003	0.0000	24.2561
Total	**2.7682**	**4.5936**	**3.9529**	**5.8800e-003**	**0.1829**	**0.2816**	**0.4645**	**0.0684**	**0.2639**	**0.3323**	**0.0000**	**515.9232**	**515.9232**	**0.0954**	**0.0000**	**517.9260**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9633	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003
Energy	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	845.4373	845.4373	0.0311	0.0104	849.3077
Mobile	5.2765	6.7896	61.8094	0.4571	0.7083	0.0794	0.7877	0.2057	0.0794	0.2851	0.0000	1,106.6736	1,106.6736	0.3547	0.0000	1,114.1222
Waste						0.0000	0.0000		0.0000	0.0000	50.1570	0.0000	50.1570	2.9642	0.0000	112.4052
Water						0.0000	0.0000		0.0000	0.0000	2.9577	29.5221	32.4798	0.3051	7.4500e-003	41.1965
Total	**6.2676**	**7.0426**	**62.0276**	**0.4586**	**0.7083**	**0.0986**	**0.8070**	**0.2057**	**0.0986**	**0.3043**	**53.1147**	**1,981.6364**	**2,034.7511**	**3.6551**	**0.0178**	**2,117.0363**

2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	0.9633	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003
Energy	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	845.4373	845.4373	0.0311	0.0104	849.3077
Mobile	5.2765	6.7896	61.8094	0.4571	0.7083	0.0794	0.7877	0.2057	0.0794	0.2851	0.0000	1,106.6736	1,106.6736	0.3547	0.0000	1,114.1222
Waste						0.0000	0.0000		0.0000	0.0000	50.1570	0.0000	50.1570	2.9642	0.0000	112.4052
Water						0.0000	0.0000		0.0000	0.0000	2.9577	29.5221	32.4798	0.3051	7.4400e-003	41.1918
Total	**6.2676**	**7.0426**	**62.0276**	**0.4586**	**0.7083**	**0.0986**	**0.8070**	**0.2057**	**0.0986**	**0.3043**	**53.1147**	**1,981.6364**	**2,034.7511**	**3.6551**	**0.0178**	**2,117.0316**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/4/2016	5	5	
3	Grading	Grading	2/5/2016	2/16/2016	5	8	
4	Building Construction	Building Construction	2/17/2016	1/3/2017	5	230	
5	Paving	Paving	1/4/2017	1/27/2017	5	18	
6	Architectural Coating	Architectural Coating	1/28/2017	2/22/2017	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 285,099; Non-Residential Outdoor: 95,033 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	80.00	31.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**		**0.0229**	**0.0229**		**0.0214**	**0.0214**	**0.0000**	**37.0974**	**37.0974**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.4000e-004	7.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.3561	1.3561	7.0000e-005	0.0000	1.3576
Total	**5.4000e-004**	**7.4000e-004**	**7.4400e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.3561**	**1.3561**	**7.0000e-005**	**0.0000**	**1.3576**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**		**0.0229**	**0.0229**		**0.0214**	**0.0214**	**0.0000**	**37.0973**	**37.0973**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.4000e-004	7.4400e-003	2.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.3561	1.3561	7.0000e-005	0.0000	1.3576
Total	**5.4000e-004**	**7.4000e-004**	**7.4400e-003**	**2.0000e-005**	**1.3600e-003**	**1.0000e-005**	**1.3700e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.3561**	**1.3561**	**7.0000e-005**	**0.0000**	**1.3576**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	**0.0127**	**0.1366**	**0.1028**	**1.0000e-004**	**0.0452**	**7.3500e-003**	**0.0525**	**0.0248**	**6.7600e-003**	**0.0316**	**0.0000**	**9.2193**	**9.2193**	**2.7800e-003**	**0.0000**	**9.2777**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	**0.0127**	**0.1366**	**0.1028**	**1.0000e-004**	**0.0452**	**7.3500e-003**	**0.0525**	**0.0248**	**6.7600e-003**	**0.0316**	**0.0000**	**9.2193**	**9.2193**	**2.7800e-003**	**0.0000**	**9.2777**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2266	11.2266	3.3900e-003	0.0000	11.2977
Total	**0.0147**	**0.1538**	**0.1043**	**1.2000e-004**	**0.0262**	**8.7900e-003**	**0.0350**	**0.0135**	**8.0900e-003**	**0.0216**	**0.0000**	**11.2266**	**11.2266**	**3.3900e-003**	**0.0000**	**11.2977**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.0000e-004	2.9800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5424	0.5424	3.0000e-005	0.0000	0.5430
Total	**2.2000e-004**	**3.0000e-004**	**2.9800e-003**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**5.5000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5424**	**0.5424**	**3.0000e-005**	**0.0000**	**0.5430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1538	0.1043	1.2000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	11.2265	11.2265	3.3900e-003	0.0000	11.2977
Total	**0.0147**	**0.1538**	**0.1043**	**1.2000e-004**	**0.0262**	**8.7900e-003**	**0.0350**	**0.0135**	**8.0900e-003**	**0.0216**	**0.0000**	**11.2265**	**11.2265**	**3.3900e-003**	**0.0000**	**11.2977**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.0000e-004	2.9800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5424	0.5424	3.0000e-005	0.0000	0.5430
Total	**2.2000e-004**	**3.0000e-004**	**2.9800e-003**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**5.5000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5424**	**0.5424**	**3.0000e-005**	**0.0000**	**0.5430**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0551	276.0551	0.0685	0.0000	277.4929
Total	**0.3883**	**3.2497**	**2.1098**	**3.0600e-003**		**0.2243**	**0.2243**		**0.2107**	**0.2107**	**0.0000**	**276.0551**	**276.0551**	**0.0685**	**0.0000**	**277.4929**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0507	0.3488	0.6500	8.1000e-004	0.0226	5.0300e-003	0.0276	6.4700e-003	4.6200e-003	0.0111	0.0000	73.4300	73.4300	5.8000e-004	0.0000	73.4422
Worker	0.0329	0.0451	0.4523	1.0800e-003	0.0827	7.6000e-004	0.0835	0.0220	7.0000e-004	0.0227	0.0000	82.4509	82.4509	4.3700e-003	0.0000	82.5427
Total	**0.0836**	**0.3939**	**1.1023**	**1.8900e-003**	**0.1053**	**5.7900e-003**	**0.1111**	**0.0285**	**5.3200e-003**	**0.0338**	**0.0000**	**155.8809**	**155.8809**	**4.9500e-003**	**0.0000**	**155.9849**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3883	3.2497	2.1098	3.0600e-003		0.2243	0.2243		0.2107	0.2107	0.0000	276.0548	276.0548	0.0685	0.0000	277.4926
Total	**0.3883**	**3.2497**	**2.1098**	**3.0600e-003**		**0.2243**	**0.2243**		**0.2107**	**0.2107**	**0.0000**	**276.0548**	**276.0548**	**0.0685**	**0.0000**	**277.4926**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0507	0.3488	0.6500	8.1000e-004	0.0226	5.0300e-003	0.0276	6.4700e-003	4.6200e-003	0.0111	0.0000	73.4300	73.4300	5.8000e-004	0.0000	73.4422
Worker	0.0329	0.0451	0.4523	1.0800e-003	0.0827	7.6000e-004	0.0835	0.0220	7.0000e-004	0.0227	0.0000	82.4509	82.4509	4.3700e-003	0.0000	82.5427
Total	**0.0836**	**0.3939**	**1.1023**	**1.8900e-003**	**0.1053**	**5.7900e-003**	**0.1111**	**0.0285**	**5.3200e-003**	**0.0338**	**0.0000**	**155.8809**	**155.8809**	**4.9500e-003**	**0.0000**	**155.9849**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-003	0.0264	0.0181	3.0000e-005		1.7800e-003	1.7800e-003		1.6700e-003	1.6700e-003	0.0000	2.3948	2.3948	5.9000e-004	0.0000	2.4072
Total	**3.1000e-003**	**0.0264**	**0.0181**	**3.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**2.3948**	**2.3948**	**5.9000e-004**	**0.0000**	**2.4072**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-004	2.7600e-003	5.3800e-003	1.0000e-005	2.0000e-004	4.0000e-005	2.4000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.6344	0.6344	0.0000	0.0000	0.6345
Worker	2.6000e-004	3.6000e-004	3.5900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6956	0.6956	4.0000e-005	0.0000	0.6963
Total	**6.7000e-004**	**3.1200e-003**	**8.9700e-003**	**2.0000e-005**	**9.3000e-004**	**5.0000e-005**	**9.7000e-004**	**2.5000e-004**	**5.0000e-005**	**2.9000e-004**	**0.0000**	**1.3300**	**1.3300**	**4.0000e-005**	**0.0000**	**1.3309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1000e-003	0.0264	0.0181	3.0000e-005		1.7800e-003	1.7800e-003		1.6700e-003	1.6700e-003	0.0000	2.3948	2.3948	5.9000e-004	0.0000	2.4072
Total	**3.1000e-003**	**0.0264**	**0.0181**	**3.0000e-005**		**1.7800e-003**	**1.7800e-003**		**1.6700e-003**	**1.6700e-003**	**0.0000**	**2.3948**	**2.3948**	**5.9000e-004**	**0.0000**	**2.4072**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-004	2.7600e-003	5.3800e-003	1.0000e-005	2.0000e-004	4.0000e-005	2.4000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.6344	0.6344	0.0000	0.0000	0.6345
Worker	2.6000e-004	3.6000e-004	3.5900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6956	0.6956	4.0000e-005	0.0000	0.6963
Total	**6.7000e-004**	**3.1200e-003**	**8.9700e-003**	**2.0000e-005**	**9.3000e-004**	**5.0000e-005**	**9.7000e-004**	**2.5000e-004**	**5.0000e-005**	**2.9000e-004**	**0.0000**	**1.3300**	**1.3300**	**4.0000e-005**	**0.0000**	**1.3309**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.1512	0.1124	1.7000e-004		9.0500e-003	9.0500e-003		8.3400e-003	8.3400e-003	0.0000	15.2992	15.2992	4.5600e-003	0.0000	15.3950
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1512**	**0.1124**	**1.7000e-004**		**9.0500e-003**	**9.0500e-003**		**8.3400e-003**	**8.3400e-003**	**0.0000**	**15.2992**	**15.2992**	**4.5600e-003**	**0.0000**	**15.3950**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.1000e-004	8.0700e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.3000e-004	1.0000e-005	4.5000e-004	0.0000	1.5651	1.5651	8.0000e-005	0.0000	1.5668
Total	**5.9000e-004**	**8.1000e-004**	**8.0700e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6500e-003**	**4.3000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5651**	**1.5651**	**8.0000e-005**	**0.0000**	**1.5668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0149	0.1512	0.1124	1.7000e-004		9.0500e-003	9.0500e-003		8.3400e-003	8.3400e-003	0.0000	15.2991	15.2991	4.5600e-003	0.0000	15.3950
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0149**	**0.1512**	**0.1124**	**1.7000e-004**		**9.0500e-003**	**9.0500e-003**		**8.3400e-003**	**8.3400e-003**	**0.0000**	**15.2991**	**15.2991**	**4.5600e-003**	**0.0000**	**15.3950**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	8.1000e-004	8.0700e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.3000e-004	1.0000e-005	4.5000e-004	0.0000	1.5651	1.5651	8.0000e-005	0.0000	1.5668
Total	**5.9000e-004**	**8.1000e-004**	**8.0700e-003**	**2.0000e-005**	**1.6300e-003**	**1.0000e-005**	**1.6500e-003**	**4.3000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5651**	**1.5651**	**8.0000e-005**	**0.0000**	**1.5668**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0197	0.0168	3.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	2.2979	2.2979	2.4000e-004	0.0000	2.3030
Total	**2.2054**	**0.0197**	**0.0168**	**3.0000e-005**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**2.2979**	**2.2979**	**2.4000e-004**	**0.0000**	**2.3030**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4600e-003	2.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2521	1.2521	6.0000e-005	0.0000	1.2534
Total	**4.7000e-004**	**6.4000e-004**	**6.4600e-003**	**2.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.2521**	**1.2521**	**6.0000e-005**	**0.0000**	**1.2534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2024					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0197	0.0168	3.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	2.2979	2.2979	2.4000e-004	0.0000	2.3030
Total	**2.2054**	**0.0197**	**0.0168**	**3.0000e-005**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**2.2979**	**2.2979**	**2.4000e-004**	**0.0000**	**2.3030**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4600e-003	2.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2521	1.2521	6.0000e-005	0.0000	1.2534
Total	**4.7000e-004**	**6.4000e-004**	**6.4600e-003**	**2.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.2521**	**1.2521**	**6.0000e-005**	**0.0000**	**1.2534**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.2765	6.7896	61.8094	0.4571	0.7083	0.0794	0.7877	0.2057	0.0794	0.2851	0.0000	1,106.6736	1,106.6736	0.3547	0.0000	1,114.1222
Unmitigated	5.2765	6.7896	61.8094	0.4571	0.7083	0.0794	0.7877	0.2057	0.0794	0.2851	0.0000	1,106.6736	1,106.6736	0.3547	0.0000	1,114.1222

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	830.04	830.04	830.04	2,107,906	2,107,906
Total	830.04	830.04	830.04	2,107,906	2,107,906

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.651917	0.131409	0.116609	0.024723	0.005366	0.011979	0.034294	0.003886	0.001827	0.008385	0.008054	0.000815	0.000736

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	570.0644	570.0644	0.0258	5.3300e-003	572.2590
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	570.0644	570.0644	0.0258	5.3300e-003	572.2590
NaturalGas Mitigated	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	275.3728	275.3728	5.2800e-003	5.0500e-003	277.0487
NaturalGas Unmitigated	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	275.3728	275.3728	5.2800e-003	5.0500e-003	277.0487

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	5.16029e+006	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	275.3728	275.3728	5.2800e-003	5.0500e-003	277.0487
Total		**0.0278**	**0.2530**	**0.2125**	**1.5200e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**275.3728**	**275.3728**	**5.2800e-003**	**5.0500e-003**	**277.0487**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	5.16029e+006	0.0278	0.2530	0.2125	1.5200e-003		0.0192	0.0192		0.0192	0.0192	0.0000	275.3728	275.3728	5.2800e-003	5.0500e-003	277.0487
Total		**0.0278**	**0.2530**	**0.2125**	**1.5200e-003**		**0.0192**	**0.0192**		**0.0192**	**0.0192**	**0.0000**	**275.3728**	**275.3728**	**5.2800e-003**	**5.0500e-003**	**277.0487**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.95958e+006	570.0644	0.0258	5.3300e-003	572.2590
Total		**570.0644**	**0.0258**	**5.3300e-003**	**572.2590**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.95958e+006	570.0644	0.0258	5.3300e-003	572.2590
Total		**570.0644**	**0.0258**	**5.3300e-003**	**572.2590**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9633	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003
Unmitigated	0.9633	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003
Total	**0.9633**	**2.0000e-005**	**5.7000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.4000e-003**	**3.4000e-003**	**6.0000e-005**	**0.0000**	**4.7400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	2.0000e-005	5.7000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.4000e-003	3.4000e-003	6.0000e-005	0.0000	4.7400e-003
Total	**0.9633**	**2.0000e-005**	**5.7000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.4000e-003**	**3.4000e-003**	**6.0000e-005**	**0.0000**	**4.7400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.4798	0.3051	7.4400e-003	41.1918
Unmitigated	32.4798	0.3051	7.4500e-003	41.1965

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	9.32275 / 14.5817	32.4798	0.3051	7.4500e-003	41.1965
Total		**32.4798**	**0.3051**	**7.4500e-003**	**41.1965**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	9.32275 / 14.5817	32.4798	0.3051	7.4400e-003	41.1918
Total		**32.4798**	**0.3051**	**7.4400e-003**	**41.1918**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.1570	2.9642	0.0000	112.4052
Unmitigated	50.1570	2.9642	0.0000	112.4052

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	247.09	50.1570	2.9642	0.0000	112.4052
Total		**50.1570**	**2.9642**	**0.0000**	**112.4052**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	247.09	50.1570	2.9642	0.0000	112.4052
Total		**50.1570**	**2.9642**	**0.0000**	**112.4052**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 30

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	99.55	1000sqft	2.29	99,552.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.433 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.43
tblVehicleTrips	SU_TR	1.21	7.43
tblVehicleTrips	WD_TR	27.49	7.43

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7313	3.4180	2.7679	4.1500e-003	0.0775	0.2123	0.2898	0.0254	0.2023	0.2277	0.0000	355.5739	355.5739	0.0676	0.0000	356.9944
2017	0.9243	8.8800e-003	8.9100e-003	2.0000e-005	2.9000e-004	7.0000e-004	9.9000e-004	8.0000e-005	7.0000e-004	7.7000e-004	0.0000	1.2995	1.2995	1.2000e-004	0.0000	1.3021
Total	**1.6556**	**3.4269**	**2.7768**	**4.1700e-003**	**0.0778**	**0.2130**	**0.2908**	**0.0254**	**0.2030**	**0.2284**	**0.0000**	**356.8734**	**356.8734**	**0.0678**	**0.0000**	**358.2965**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7313	3.4180	2.7679	4.1500e-003	0.0775	0.2123	0.2898	0.0254	0.2023	0.2277	0.0000	355.5736	355.5736	0.0676	0.0000	356.9941
2017	0.9243	8.8800e-003	8.9100e-003	2.0000e-005	2.9000e-004	7.0000e-004	9.9000e-004	8.0000e-005	7.0000e-004	7.7000e-004	0.0000	1.2995	1.2995	1.2000e-004	0.0000	1.3021
Total	**1.6556**	**3.4269**	**2.7768**	**4.1700e-003**	**0.0778**	**0.2130**	**0.2908**	**0.0254**	**0.2030**	**0.2284**	**0.0000**	**356.8731**	**356.8731**	**0.0678**	**0.0000**	**358.2962**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5043	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003
Energy	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	442.8197	442.8197	0.0163	5.4400e-003	444.8470
Mobile	1.2382	2.4805	13.4767	0.0219	0.6314	0.0526	0.6840	0.1833	0.0526	0.2359	0.0000	989.6204	989.6204	0.0962	0.0000	991.6399
Waste						0.0000	0.0000		0.0000	0.0000	26.2691	0.0000	26.2691	1.5525	0.0000	58.8707
Water						0.0000	0.0000		0.0000	0.0000	1.5491	15.4623	17.0114	0.1598	3.9000e-003	21.5768
Total	**1.7571**	**2.6130**	**13.5891**	**0.0227**	**0.6314**	**0.0627**	**0.6941**	**0.1833**	**0.0627**	**0.2460**	**27.8182**	**1,447.9042**	**1,475.7224**	**1.8247**	**9.3400e-003**	**1,516.9363**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5043	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003
Energy	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	442.8197	442.8197	0.0163	5.4400e-003	444.8470
Mobile	1.2382	2.4805	13.4767	0.0219	0.6314	0.0526	0.6840	0.1833	0.0526	0.2359	0.0000	989.6204	989.6204	0.0962	0.0000	991.6399
Waste						0.0000	0.0000		0.0000	0.0000	26.2691	0.0000	26.2691	1.5525	0.0000	58.8707
Water						0.0000	0.0000		0.0000	0.0000	1.5491	15.4623	17.0114	0.1598	3.9000e-003	21.5744
Total	**1.7571**	**2.6130**	**13.5891**	**0.0227**	**0.6314**	**0.0627**	**0.6941**	**0.1833**	**0.0627**	**0.2460**	**27.8182**	**1,447.9042**	**1,475.7224**	**1.8247**	**9.3400e-003**	**1,516.9339**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 149,328; Non-Residential Outdoor: 49,776 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	42.00	16.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8222	5.8222	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8222**	**5.8222**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8221	5.8221	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8221**	**5.8221**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7292	234.7292	0.0541	0.0000	235.8650
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7292**	**234.7292**	**0.0541**	**0.0000**	**235.8650**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0253	0.1737	0.3237	4.0000e-004	0.0113	2.5000e-003	0.0138	3.2200e-003	2.3000e-003	5.5200e-003	0.0000	36.5695	36.5695	2.9000e-004	0.0000	36.5756
Worker	0.0167	0.0228	0.2291	5.5000e-004	0.0419	3.8000e-004	0.0423	0.0112	3.5000e-004	0.0115	0.0000	41.7679	41.7679	2.2100e-003	0.0000	41.8144
Total	**0.0419**	**0.1965**	**0.5528**	**9.5000e-004**	**0.0532**	**2.8800e-003**	**0.0560**	**0.0144**	**2.6500e-003**	**0.0170**	**0.0000**	**78.3375**	**78.3375**	**2.5000e-003**	**0.0000**	**78.3900**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7289	234.7289	0.0541	0.0000	235.8647
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7289**	**234.7289**	**0.0541**	**0.0000**	**235.8647**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0253	0.1737	0.3237	4.0000e-004	0.0113	2.5000e-003	0.0138	3.2200e-003	2.3000e-003	5.5200e-003	0.0000	36.5695	36.5695	2.9000e-004	0.0000	36.5756
Worker	0.0167	0.0228	0.2291	5.5000e-004	0.0419	3.8000e-004	0.0423	0.0112	3.5000e-004	0.0115	0.0000	41.7679	41.7679	2.2100e-003	0.0000	41.8144
Total	**0.0419**	**0.1965**	**0.5528**	**9.5000e-004**	**0.0532**	**2.8800e-003**	**0.0560**	**0.0144**	**2.6500e-003**	**0.0170**	**0.0000**	**78.3375**	**78.3375**	**2.5000e-003**	**0.0000**	**78.3900**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2311**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2311**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**0.9242**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.4300e-003	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2782	0.2782	1.0000e-005	0.0000	0.2785
Total	**1.0000e-004**	**1.4000e-004**	**1.4300e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2782**	**0.2782**	**1.0000e-005**	**0.0000**	**0.2785**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**0.9242**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.4300e-003	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2782	0.2782	1.0000e-005	0.0000	0.2785
Total	**1.0000e-004**	**1.4000e-004**	**1.4300e-003**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2782**	**0.2782**	**1.0000e-005**	**0.0000**	**0.2785**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2382	2.4805	13.4767	0.0219	0.6314	0.0526	0.6840	0.1833	0.0526	0.2359	0.0000	989.6204	989.6204	0.0962	0.0000	991.6399
Unmitigated	1.2382	2.4805	13.4767	0.0219	0.6314	0.0526	0.6840	0.1833	0.0526	0.2359	0.0000	989.6204	989.6204	0.0962	0.0000	991.6399

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	739.97	739.97	739.97	1,879,181	1,879,181
Total	739.97	739.97	739.97	1,879,181	1,879,181

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	298.5860	298.5860	0.0135	2.7900e-003	299.7355
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	298.5860	298.5860	0.0135	2.7900e-003	299.7355
NaturalGas Mitigated	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2337	144.2337	2.7600e-003	2.6400e-003	145.1115
NaturalGas Unmitigated	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2337	144.2337	2.7600e-003	2.6400e-003	145.1115

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.70284e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2337	144.2337	2.7600e-003	2.6400e-003	145.1115
Total		**0.0146**	**0.1325**	**0.1113**	**7.9000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.2337**	**144.2337**	**2.7600e-003**	**2.6400e-003**	**145.1115**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.70284e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2337	144.2337	2.7600e-003	2.6400e-003	145.1115
Total		**0.0146**	**0.1325**	**0.1113**	**7.9000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.2337**	**144.2337**	**2.7600e-003**	**2.6400e-003**	**145.1115**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.02638e+006	298.5860	0.0135	2.7900e-003	299.7355
Total		**298.5860**	**0.0135**	**2.7900e-003**	**299.7355**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.02638e +006	298.5860	0.0135	2.7900e-003	299.7355
Total		**298.5860**	**0.0135**	**2.7900e-003**	**299.7355**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5043	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003
Unmitigated	0.5043	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1154					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3888					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003
Total	**0.5043**	**1.0000e-005**	**1.1600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7800e-003**	**1.7800e-003**	**1.0000e-005**	**0.0000**	**1.9500e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1154					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3888					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.1600e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7800e-003	1.7800e-003	1.0000e-005	0.0000	1.9500e-003
Total	**0.5043**	**1.0000e-005**	**1.1600e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7800e-003**	**1.7800e-003**	**1.0000e-005**	**0.0000**	**1.9500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	17.0114	0.1598	3.9000e-003	21.5744
Unmitigated	17.0114	0.1598	3.9000e-003	21.5768

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	4.88283 / 7.63725	17.0114	0.1598	3.9000e-003	21.5768
Total		**17.0114**	**0.1598**	**3.9000e-003**	**21.5768**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	4.88283 / 7.63725	17.0114	0.1598	3.9000e-003	21.5744
Total		**17.0114**	**0.1598**	**3.9000e-003**	**21.5744**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.2691	1.5525	0.0000	58.8707
Unmitigated	26.2691	1.5525	0.0000	58.8707

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	129.41	26.2691	1.5525	0.0000	58.8707
Total		**26.2691**	**1.5525**	**0.0000**	**58.8707**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	129.41	26.2691	1.5525	0.0000	58.8707
Total		**26.2691**	**1.5525**	**0.0000**	**58.8707**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 31

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	73.67	1000sqft	1.69	73,666.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 4.6 **Precipitation Freq (Days)** 64

Climate Zone 5 **Operational Year** 2005

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.33 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.33
tblVehicleTrips	SU_TR	1.21	7.33
tblVehicleTrips	WD_TR	27.49	7.33

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2558	2.6179	2.1712	3.2400e-003	0.0537	0.1647	0.2184	0.0183	0.1580	0.1763	0.0000	275.2231	275.2231	0.0516	0.0000	276.3066
Total	**1.2558**	**2.6179**	**2.1712**	**3.2400e-003**	**0.0537**	**0.1647**	**0.2184**	**0.0183**	**0.1580**	**0.1763**	**0.0000**	**275.2231**	**275.2231**	**0.0516**	**0.0000**	**276.3066**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2558	2.6179	2.1712	3.2400e-003	0.0537	0.1647	0.2184	0.0183	0.1580	0.1763	0.0000	275.2228	275.2228	0.0516	0.0000	276.3064
Total	**1.2558**	**2.6179**	**2.1712**	**3.2400e-003**	**0.0537**	**0.1647**	**0.2184**	**0.0183**	**0.1580**	**0.1763**	**0.0000**	**275.2228**	**275.2228**	**0.0516**	**0.0000**	**276.3064**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3732	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003
Energy	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	327.6756	327.6756	0.0120	4.0200e-003	329.1757
Mobile	0.9035	1.8100	9.8342	0.0160	0.4608	0.0384	0.4992	0.1337	0.0384	0.1722	0.0000	722.1469	722.1469	0.0702	0.0000	723.6206
Waste						0.0000	0.0000		0.0000	0.0000	19.4404	0.0000	19.4404	1.1489	0.0000	43.5673
Water						0.0000	0.0000		0.0000	0.0000	1.1464	11.4426	12.5890	0.1183	2.8900e-003	15.9675
Total	**1.2875**	**1.9081**	**9.9174**	**0.0166**	**0.4608**	**0.0459**	**0.5066**	**0.1337**	**0.0459**	**0.1796**	**20.5868**	**1,061.2664**	**1,081.8532**	**1.3494**	**6.9100e-003**	**1,112.3325**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3732	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003
Energy	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	327.6756	327.6756	0.0120	4.0200e-003	329.1757
Mobile	0.9035	1.8100	9.8342	0.0160	0.4608	0.0384	0.4992	0.1337	0.0384	0.1722	0.0000	722.1469	722.1469	0.0702	0.0000	723.6206
Waste						0.0000	0.0000		0.0000	0.0000	19.4404	0.0000	19.4404	1.1489	0.0000	43.5673
Water						0.0000	0.0000		0.0000	0.0000	1.1464	11.4426	12.5890	0.1182	2.8800e-003	15.9657
Total	**1.2875**	**1.9081**	**9.9174**	**0.0166**	**0.4608**	**0.0459**	**0.5066**	**0.1337**	**0.0459**	**0.1796**	**20.5868**	**1,061.2664**	**1,081.8532**	**1.3494**	**6.9000e-003**	**1,112.3307**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 110,499; Non-Residential Outdoor: 36,833 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	31.00	12.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	4.0000e-005	4.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0723	0.0723	0.0000	0.0000	0.0724
Total	**3.0000e-005**	**4.0000e-005**	**4.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0723**	**0.0723**	**0.0000**	**0.0000**	**0.0724**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1447	0.1447	1.0000e-005	0.0000	0.1448
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1447**	**0.1447**	**1.0000e-005**	**0.0000**	**0.1448**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.1184	0.2207	2.8000e-004	7.6700e-003	1.7100e-003	9.3800e-003	2.2000e-003	1.5700e-003	3.7700e-003	0.0000	24.9338	24.9338	2.0000e-004	0.0000	24.9379
Worker	0.0112	0.0153	0.1537	3.7000e-004	0.0281	2.6000e-004	0.0284	7.4800e-003	2.4000e-004	7.7200e-003	0.0000	28.0261	28.0261	1.4900e-003	0.0000	28.0573
Total	**0.0284**	**0.1338**	**0.3745**	**6.5000e-004**	**0.0358**	**1.9700e-003**	**0.0378**	**9.6800e-003**	**1.8100e-003**	**0.0115**	**0.0000**	**52.9599**	**52.9599**	**1.6900e-003**	**0.0000**	**52.9952**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.1184	0.2207	2.8000e-004	7.6700e-003	1.7100e-003	9.3800e-003	2.2000e-003	1.5700e-003	3.7700e-003	0.0000	24.9338	24.9338	2.0000e-004	0.0000	24.9379
Worker	0.0112	0.0153	0.1537	3.7000e-004	0.0281	2.6000e-004	0.0284	7.4800e-003	2.4000e-004	7.7200e-003	0.0000	28.0261	28.0261	1.4900e-003	0.0000	28.0573
Total	**0.0284**	**0.1338**	**0.3745**	**6.5000e-004**	**0.0358**	**1.9700e-003**	**0.0378**	**9.6800e-003**	**1.8100e-003**	**0.0115**	**0.0000**	**52.9599**	**52.9599**	**1.6900e-003**	**0.0000**	**52.9952**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4400e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.2000e-004	3.2200e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5876	0.5876	3.0000e-005	0.0000	0.5883
Total	**2.3000e-004**	**3.2000e-004**	**3.2200e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5876**	**0.5876**	**3.0000e-005**	**0.0000**	**0.5883**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8554**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8536					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.8554**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9035	1.8100	9.8342	0.0160	0.4608	0.0384	0.4992	0.1337	0.0384	0.1722	0.0000	722.1469	722.1469	0.0702	0.0000	723.6206
Unmitigated	0.9035	1.8100	9.8342	0.0160	0.4608	0.0384	0.4992	0.1337	0.0384	0.1722	0.0000	722.1469	722.1469	0.0702	0.0000	723.6206

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	539.97	539.97	539.97	1,371,278	1,371,278
Total	539.97	539.97	539.97	1,371,278	1,371,278

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	220.9462	220.9462	9.9900e-003	2.0700e-003	221.7968
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	220.9462	220.9462	9.9900e-003	2.0700e-003	221.7968
NaturalGas Mitigated	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	106.7293	106.7293	2.0500e-003	1.9600e-003	107.3789
NaturalGas Unmitigated	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	106.7293	106.7293	2.0500e-003	1.9600e-003	107.3789

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.00003e+006	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	106.7293	106.7293	2.0500e-003	1.9600e-003	107.3789
Total		**0.0108**	**0.0980**	**0.0824**	**5.9000e-004**		**7.4500e-003**	**7.4500e-003**		**7.4500e-003**	**7.4500e-003**	**0.0000**	**106.7293**	**106.7293**	**2.0500e-003**	**1.9600e-003**	**107.3789**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	2.00003e+006	0.0108	0.0980	0.0824	5.9000e-004		7.4500e-003	7.4500e-003		7.4500e-003	7.4500e-003	0.0000	106.7293	106.7293	2.0500e-003	1.9600e-003	107.3789
Total		**0.0108**	**0.0980**	**0.0824**	**5.9000e-004**		**7.4500e-003**	**7.4500e-003**		**7.4500e-003**	**7.4500e-003**	**0.0000**	**106.7293**	**106.7293**	**2.0500e-003**	**1.9600e-003**	**107.3789**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	759496	220.9462	9.9900e-003	2.0700e-003	221.7968
Total		**220.9462**	**9.9900e-003**	**2.0700e-003**	**221.7968**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	759496	220.9462	9.9900e-003	2.0700e-003	221.7968
Total		**220.9462**	**9.9900e-003**	**2.0700e-003**	**221.7968**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3732	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003
Unmitigated	0.3732	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2877					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003
Total	**0.3732**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3200e-003**	**1.3200e-003**	**1.0000e-005**	**0.0000**	**1.4400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2877					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	1.0000e-005	0.0000	1.4400e-003
Total	**0.3732**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3200e-003**	**1.3200e-003**	**1.0000e-005**	**0.0000**	**1.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.5890	0.1182	2.8800e-003	15.9657
Unmitigated	12.5890	0.1183	2.8900e-003	15.9675

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	3.61344 / 5.65179	12.5890	0.1183	2.8900e-003	15.9675
Total		**12.5890**	**0.1183**	**2.8900e-003**	**15.9675**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	3.61344 / 5.65179	12.5890	0.1182	2.8800e-003	15.9657
Total		**12.5890**	**0.1182**	**2.8800e-003**	**15.9657**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.4404	1.1489	0.0000	43.5673
Unmitigated	19.4404	1.1489	0.0000	43.5673

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	95.77	19.4404	1.1489	0.0000	43.5673
Total		**19.4404**	**1.1489**	**0.0000**	**43.5673**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	95.77	19.4404	1.1489	0.0000	43.5673
Total		**19.4404**	**1.1489**	**0.0000**	**43.5673**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 33

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	25.92	1000sqft	0.60	25,920.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.33 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.33
tblVehicleTrips	SU_TR	1.21	7.33
tblVehicleTrips	WD_TR	27.49	7.33

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3870	0.8151	0.5591	8.0000e-004	8.3100e-003	0.0547	0.0630	2.4100e-003	0.0506	0.0530	0.0000	73.6376	73.6376	0.0187	0.0000	74.0294
Total	**0.3870**	**0.8151**	**0.5591**	**8.0000e-004**	**8.3100e-003**	**0.0547**	**0.0630**	**2.4100e-003**	**0.0506**	**0.0530**	**0.0000**	**73.6376**	**73.6376**	**0.0187**	**0.0000**	**74.0294**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3870	0.8151	0.5591	8.0000e-004	8.3100e-003	0.0547	0.0630	2.4100e-003	0.0506	0.0530	0.0000	73.6375	73.6375	0.0187	0.0000	74.0293
Total	**0.3870**	**0.8151**	**0.5591**	**8.0000e-004**	**8.3100e-003**	**0.0547**	**0.0630**	**2.4100e-003**	**0.0506**	**0.0530**	**0.0000**	**73.6375**	**73.6375**	**0.0187**	**0.0000**	**74.0293**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1313	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004
Energy	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	115.2954	115.2954	4.2400e-003	1.4200e-003	115.8232
Mobile	0.3179	0.6369	3.4603	5.6300e-003	0.1621	0.0135	0.1756	0.0471	0.0135	0.0606	0.0000	254.0935	254.0935	0.0247	0.0000	254.6120
Waste						0.0000	0.0000		0.0000	0.0000	6.8408	0.0000	6.8408	0.4043	0.0000	15.3307
Water						0.0000	0.0000		0.0000	0.0000	0.4033	4.0260	4.4293	0.0416	1.0200e-003	5.6180
Total	**0.4530**	**0.6714**	**3.4895**	**5.8400e-003**	**0.1621**	**0.0161**	**0.1783**	**0.0471**	**0.0161**	**0.0632**	**7.2441**	**373.4153**	**380.6594**	**0.4748**	**2.4400e-003**	**391.3844**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1313	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004
Energy	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	115.2954	115.2954	4.2400e-003	1.4200e-003	115.8232
Mobile	0.3179	0.6369	3.4603	5.6300e-003	0.1621	0.0135	0.1756	0.0471	0.0135	0.0606	0.0000	254.0935	254.0935	0.0247	0.0000	254.6120
Waste						0.0000	0.0000		0.0000	0.0000	6.8408	0.0000	6.8408	0.4043	0.0000	15.3307
Water						0.0000	0.0000		0.0000	0.0000	0.4033	4.0260	4.4293	0.0416	1.0100e-003	5.6174
Total	**0.4530**	**0.6714**	**3.4895**	**5.8400e-003**	**0.1621**	**0.0161**	**0.1783**	**0.0471**	**0.0161**	**0.0632**	**7.2441**	**373.4153**	**380.6594**	**0.4748**	**2.4300e-003**	**391.3837**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.41**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/14/2016	5	10	
2	Site Preparation	Site Preparation	1/15/2016	1/15/2016	5	1	
3	Grading	Grading	1/16/2016	1/19/2016	5	2	
4	Building Construction	Building Construction	1/20/2016	6/7/2016	5	100	
5	Paving	Paving	6/8/2016	6/14/2016	5	5	
6	Architectural Coating	Architectural Coating	6/15/2016	6/21/2016	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 38,880; Non-Residential Outdoor: 12,960 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	11.00	4.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5600e-003	0.0562	0.0435	6.0000e-005		4.0200e-003	4.0200e-003		3.8400e-003	3.8400e-003	0.0000	5.4141	5.4141	1.0800e-003	0.0000	5.4369
Total	**6.5600e-003**	**0.0562**	**0.0435**	**6.0000e-005**		**4.0200e-003**	**4.0200e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**5.4141**	**5.4141**	**1.0800e-003**	**0.0000**	**5.4369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.5000e-004	2.4800e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4520	0.4520	2.0000e-005	0.0000	0.4525
Total	**1.8000e-004**	**2.5000e-004**	**2.4800e-003**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4520**	**0.4520**	**2.0000e-005**	**0.0000**	**0.4525**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.3 Site Preparation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	6.8200e-003	3.6700e-003	0.0000		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	0.4414	0.4414	1.3000e-004	0.0000	0.4442
Total	**6.8000e-004**	**6.8200e-003**	**3.6700e-003**	**0.0000**	**2.7000e-004**	**4.2000e-004**	**6.9000e-004**	**3.0000e-005**	**3.8000e-004**	**4.1000e-004**	**0.0000**	**0.4414**	**0.4414**	**1.3000e-004**	**0.0000**	**0.4442**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0226	0.0226	0.0000	0.0000	0.0226
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0226**	**0.0226**	**0.0000**	**0.0000**	**0.0226**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.4 Grading - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0112	8.7000e-003	1.0000e-005		8.0000e-004	8.0000e-004		7.7000e-004	7.7000e-004	0.0000	1.0828	1.0828	2.2000e-004	0.0000	1.0874
Total	**1.3100e-003**	**0.0112**	**8.7000e-003**	**1.0000e-005**	**7.5000e-004**	**8.0000e-004**	**1.5500e-003**	**4.1000e-004**	**7.7000e-004**	**1.1800e-003**	**0.0000**	**1.0828**	**1.0828**	**2.2000e-004**	**0.0000**	**1.0874**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4584	53.4584	0.0161	0.0000	53.7970
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4584**	**53.4584**	**0.0161**	**0.0000**	**53.7970**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	1.9800e-003	2.7200e-003	0.0273	7.0000e-005	4.9900e-003	5.0000e-005	5.0300e-003	1.3300e-003	4.0000e-005	1.3700e-003	0.0000	4.9724	4.9724	2.6000e-004	0.0000	4.9779
Total	**4.8500e-003**	**0.0225**	**0.0641**	**1.2000e-004**	**6.2700e-003**	**3.3000e-004**	**6.5900e-003**	**1.7000e-003**	**3.0000e-004**	**2.0000e-003**	**0.0000**	**9.1280**	**9.1280**	**2.9000e-004**	**0.0000**	**9.1342**

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0691	0.6853	0.4106	5.7000e-004		0.0470	0.0470		0.0432	0.0432	0.0000	53.4583	53.4583	0.0161	0.0000	53.7969
Total	**0.0691**	**0.6853**	**0.4106**	**5.7000e-004**		**0.0470**	**0.0470**		**0.0432**	**0.0432**	**0.0000**	**53.4583**	**53.4583**	**0.0161**	**0.0000**	**53.7969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8700e-003	0.0197	0.0368	5.0000e-005	1.2800e-003	2.8000e-004	1.5600e-003	3.7000e-004	2.6000e-004	6.3000e-004	0.0000	4.1556	4.1556	3.0000e-005	0.0000	4.1563
Worker	1.9800e-003	2.7200e-003	0.0273	7.0000e-005	4.9900e-003	5.0000e-005	5.0300e-003	1.3300e-003	4.0000e-005	1.3700e-003	0.0000	4.9724	4.9724	2.6000e-004	0.0000	4.9779
Total	**4.8500e-003**	**0.0225**	**0.0641**	**1.2000e-004**	**6.2700e-003**	**3.3000e-004**	**6.5900e-003**	**1.7000e-003**	**3.0000e-004**	**2.0000e-003**	**0.0000**	**9.1280**	**9.1280**	**2.9000e-004**	**0.0000**	**9.1342**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.6 Paving - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0266	0.0182	3.0000e-005		1.6500e-003	1.6500e-003		1.5300e-003	1.5300e-003	0.0000	2.4575	2.4575	6.7000e-004	0.0000	2.4717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0266**	**0.0182**	**3.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**2.4575**	**2.4575**	**6.7000e-004**	**0.0000**	**2.4717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	2.2000e-004	2.2300e-003	1.0000e-005	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.4068	0.4068	2.0000e-005	0.0000	0.4073
Total	**1.6000e-004**	**2.2000e-004**	**2.2300e-003**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.4068**	**0.4068**	**2.0000e-005**	**0.0000**	**0.4073**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3013**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

3.7 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	5.9300e-003	4.7100e-003	1.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.6383	0.6383	8.0000e-005	0.0000	0.6399
Total	**0.3013**	**5.9300e-003**	**4.7100e-003**	**1.0000e-005**		**4.9000e-004**	**4.9000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**0.6383**	**0.6383**	**8.0000e-005**	**0.0000**	**0.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0453
Total	**2.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0452**	**0.0452**	**0.0000**	**0.0000**	**0.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.3179	0.6369	3.4603	5.6300e-003	0.1621	0.0135	0.1756	0.0471	0.0135	0.0606	0.0000	254.0935	254.0935	0.0247	0.0000	254.6120
Unmitigated	0.3179	0.6369	3.4603	5.6300e-003	0.1621	0.0135	0.1756	0.0471	0.0135	0.0606	0.0000	254.0935	254.0935	0.0247	0.0000	254.6120

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	189.99	189.99	189.99	482,496	482,496
Total	189.99	189.99	189.99	482,496	482,496

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.7418	77.7418	3.5200e-003	7.3000e-004	78.0411
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.7418	77.7418	3.5200e-003	7.3000e-004	78.0411
NaturalGas Mitigated	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5536	37.5536	7.2000e-004	6.9000e-004	37.7822
NaturalGas Unmitigated	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5536	37.5536	7.2000e-004	6.9000e-004	37.7822

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	703728	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5536	37.5536	7.2000e-004	6.9000e-004	37.7822
Total		**3.7900e-003**	**0.0345**	**0.0290**	**2.1000e-004**		**2.6200e-003**	**2.6200e-003**		**2.6200e-003**	**2.6200e-003**	**0.0000**	**37.5536**	**37.5536**	**7.2000e-004**	**6.9000e-004**	**37.7822**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	703728	3.7900e-003	0.0345	0.0290	2.1000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	37.5536	37.5536	7.2000e-004	6.9000e-004	37.7822
Total		**3.7900e-003**	**0.0345**	**0.0290**	**2.1000e-004**		**2.6200e-003**	**2.6200e-003**		**2.6200e-003**	**2.6200e-003**	**0.0000**	**37.5536**	**37.5536**	**7.2000e-004**	**6.9000e-004**	**37.7822**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	267235	77.7418	3.5200e-003	7.3000e-004	78.0411
Total		**77.7418**	**3.5200e-003**	**7.3000e-004**	**78.0411**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	267235	77.7418	3.5200e-003	7.3000e-004	78.0411
Total		**77.7418**	**3.5200e-003**	**7.3000e-004**	**78.0411**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1313	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004
Unmitigated	0.1313	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1012					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004
Total	**0.1313**	**0.0000**	**3.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1012					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.6000e-004	4.6000e-004	0.0000	0.0000	5.1000e-004
Total	**0.1313**	**0.0000**	**3.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.6000e-004**	**4.6000e-004**	**0.0000**	**0.0000**	**5.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.4293	0.0416	1.0100e-003	5.6174
Unmitigated	4.4293	0.0416	1.0200e-003	5.6180

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.27135 / 1.98852	4.4293	0.0416	1.0200e-003	5.6180
Total		**4.4293**	**0.0416**	**1.0200e-003**	**5.6180**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.27135 / 1.98852	4.4293	0.0416	1.0100e-003	5.6174
Total		**4.4293**	**0.0416**	**1.0100e-003**	**5.6174**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.8408	0.4043	0.0000	15.3307
Unmitigated	6.8408	0.4043	0.0000	15.3307

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	33.7	6.8408	0.4043	0.0000	15.3307
Total		**6.8408**	**0.4043**	**0.0000**	**15.3307**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	33.7	6.8408	0.4043	0.0000	15.3307
Total		**6.8408**	**0.4043**	**0.0000**	**15.3307**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AAU Existing Site 34

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	113.44	1000sqft	2.60	113,436.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Vehicle trips are based on project specific traffic study there are 7.405 non-shuttle vehicle trips. Shuttle trip emissions estimated separately. 1/29/16 adjustment to trip rates due to updated information.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	35.21	26.41
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleTrips	ST_TR	11.23	7.41
tblVehicleTrips	SU_TR	1.21	7.41
tblVehicleTrips	WD_TR	27.49	7.41

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7706	3.4538	2.8614	4.3100e-003	0.0856	0.2128	0.2984	0.0276	0.2028	0.2304	0.0000	368.4156	368.4156	0.0680	0.0000	369.8439
2017	1.0530	8.9200e-003	9.2700e-003	2.0000e-005	3.6000e-004	7.0000e-004	1.0600e-003	1.0000e-004	7.0000e-004	7.9000e-004	0.0000	1.3691	1.3691	1.3000e-004	0.0000	1.3717
Total	**1.8236**	**3.4628**	**2.8707**	**4.3300e-003**	**0.0860**	**0.2135**	**0.2995**	**0.0277**	**0.2035**	**0.2311**	**0.0000**	**369.7847**	**369.7847**	**0.0681**	**0.0000**	**371.2157**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.7706	3.4538	2.8614	4.3100e-003	0.0856	0.2128	0.2984	0.0276	0.2028	0.2304	0.0000	368.4153	368.4153	0.0680	0.0000	369.8436
2017	1.0530	8.9200e-003	9.2700e-003	2.0000e-005	3.6000e-004	7.0000e-004	1.0600e-003	1.0000e-004	7.0000e-004	7.9000e-004	0.0000	1.3691	1.3691	1.3000e-004	0.0000	1.3717
Total	**1.8236**	**3.4628**	**2.8707**	**4.3300e-003**	**0.0860**	**0.2135**	**0.2995**	**0.0277**	**0.2035**	**0.2311**	**0.0000**	**369.7844**	**369.7844**	**0.0681**	**0.0000**	**371.2153**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5746	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003
Energy	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	504.5775	504.5775	0.0185	6.2000e-003	506.8874
Mobile	1.4056	2.8157	15.2983	0.0249	0.7168	0.0598	0.7765	0.2081	0.0598	0.2678	0.0000	1,123.3898	1,123.3898	0.1092	0.0000	1,125.6823
Waste						0.0000	0.0000		0.0000	0.0000	29.9351	0.0000	29.9351	1.7691	0.0000	67.0864
Water						0.0000	0.0000		0.0000	0.0000	1.7652	17.6198	19.3850	0.1821	4.4500e-003	24.5874
Total	**1.9968**	**2.9667**	**15.4265**	**0.0258**	**0.7168**	**0.0712**	**0.7880**	**0.2081**	**0.0712**	**0.2793**	**31.7003**	**1,645.5891**	**1,677.2894**	**2.0789**	**0.0107**	**1,724.2459**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5746	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003
Energy	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	504.5775	504.5775	0.0185	6.2000e-003	506.8874
Mobile	1.4056	2.8157	15.2983	0.0249	0.7168	0.0598	0.7765	0.2081	0.0598	0.2678	0.0000	1,123.3898	1,123.3898	0.1092	0.0000	1,125.6823
Waste						0.0000	0.0000		0.0000	0.0000	29.9351	0.0000	29.9351	1.7691	0.0000	67.0864
Water						0.0000	0.0000		0.0000	0.0000	1.7652	17.6198	19.3850	0.1821	4.4400e-003	24.5846
Total	**1.9968**	**2.9667**	**15.4265**	**0.0258**	**0.7168**	**0.0712**	**0.7880**	**0.2081**	**0.0712**	**0.2793**	**31.7003**	**1,645.5891**	**1,677.2894**	**2.0789**	**0.0106**	**1,724.2431**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.09**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/2/2016	5	3	
3	Grading	Grading	2/3/2016	2/10/2016	5	6	
4	Building Construction	Building Construction	2/11/2016	12/14/2016	5	220	
5	Paving	Paving	12/15/2016	12/28/2016	5	10	
6	Architectural Coating	Architectural Coating	12/29/2016	1/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 170,154; Non-Residential Outdoor: 56,718 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	48.00	19.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**		**0.0175**	**0.0175**		**0.0163**	**0.0163**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	6.4000e-004	6.4500e-003	2.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.1753	1.1753	6.0000e-005	0.0000	1.1766
Total	**4.7000e-004**	**6.4000e-004**	**6.4500e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1753**	**1.1753**	**6.0000e-005**	**0.0000**	**1.1766**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0500e-003	0.0462	0.0271	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.3749	3.3749	1.0200e-003	0.0000	3.3962
Total	**4.0500e-003**	**0.0462**	**0.0271**	**4.0000e-005**	**2.3900e-003**	**2.2700e-003**	**4.6600e-003**	**2.6000e-004**	**2.0900e-003**	**2.3500e-003**	**0.0000**	**3.3749**	**3.3749**	**1.0200e-003**	**0.0000**	**3.3962**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.0000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1085	0.1085	1.0000e-005	0.0000	0.1086
Total	**4.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1085**	**0.1085**	**1.0000e-005**	**0.0000**	**0.1086**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8222	5.8222	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8222**	**5.8222**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5600e-003	0.0898	0.0589	6.0000e-005		5.0000e-003	5.0000e-003		4.6000e-003	4.6000e-003	0.0000	5.8221	5.8221	1.7600e-003	0.0000	5.8590
Total	**8.5600e-003**	**0.0898**	**0.0589**	**6.0000e-005**	**0.0197**	**5.0000e-003**	**0.0247**	**0.0101**	**4.6000e-003**	**0.0147**	**0.0000**	**5.8221**	**5.8221**	**1.7600e-003**	**0.0000**	**5.8590**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.5000e-004	1.4900e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2712	0.2712	1.0000e-005	0.0000	0.2715
Total	**1.1000e-004**	**1.5000e-004**	**1.4900e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2712**	**0.2712**	**1.0000e-005**	**0.0000**	**0.2715**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7292	234.7292	0.0541	0.0000	235.8650
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7292**	**234.7292**	**0.0541**	**0.0000**	**235.8650**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.2063	0.3844	4.8000e-004	0.0134	2.9700e-003	0.0163	3.8300e-003	2.7300e-003	6.5600e-003	0.0000	43.4263	43.4263	3.4000e-004	0.0000	43.4336
Worker	0.0190	0.0261	0.2619	6.3000e-004	0.0479	4.4000e-004	0.0483	0.0127	4.0000e-004	0.0131	0.0000	47.7348	47.7348	2.5300e-003	0.0000	47.7879
Total	**0.0490**	**0.2324**	**0.6463**	**1.1100e-003**	**0.0613**	**3.4100e-003**	**0.0647**	**0.0166**	**3.1300e-003**	**0.0197**	**0.0000**	**91.1611**	**91.1611**	**2.8700e-003**	**0.0000**	**91.2214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4068	2.7095	1.8388	2.7400e-003		0.1788	0.1788		0.1713	0.1713	0.0000	234.7289	234.7289	0.0541	0.0000	235.8647
Total	**0.4068**	**2.7095**	**1.8388**	**2.7400e-003**		**0.1788**	**0.1788**		**0.1713**	**0.1713**	**0.0000**	**234.7289**	**234.7289**	**0.0541**	**0.0000**	**235.8647**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.2063	0.3844	4.8000e-004	0.0134	2.9700e-003	0.0163	3.8300e-003	2.7300e-003	6.5600e-003	0.0000	43.4263	43.4263	3.4000e-004	0.0000	43.4336
Worker	0.0190	0.0261	0.2619	6.3000e-004	0.0479	4.4000e-004	0.0483	0.0127	4.0000e-004	0.0131	0.0000	47.7348	47.7348	2.5300e-003	0.0000	47.7879
Total	**0.0490**	**0.2324**	**0.6463**	**1.1100e-003**	**0.0613**	**3.4100e-003**	**0.0647**	**0.0166**	**3.1300e-003**	**0.0197**	**0.0000**	**91.1611**	**91.1611**	**2.8700e-003**	**0.0000**	**91.2214**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9100e-003	0.0897	0.0607	9.0000e-005		5.6300e-003	5.6300e-003		5.1800e-003	5.1800e-003	0.0000	8.1867	8.1867	2.4200e-003	0.0000	8.2376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9100e-003**	**0.0897**	**0.0607**	**9.0000e-005**		**5.6300e-003**	**5.6300e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**8.1867**	**8.1867**	**2.4200e-003**	**0.0000**	**8.2376**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	3.7000e-004	3.7200e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6781	0.6781	4.0000e-005	0.0000	0.6788
Total	**2.7000e-004**	**3.7000e-004**	**3.7200e-003**	**1.0000e-005**	**6.8000e-004**	**1.0000e-005**	**6.9000e-004**	**1.8000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6781**	**0.6781**	**4.0000e-005**	**0.0000**	**0.6788**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2633**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7000e-004	2.3700e-003	1.8800e-003	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.2553	0.2553	3.0000e-005	0.0000	0.2560
Total	**0.2633**	**2.3700e-003**	**1.8800e-003**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.2553**	**0.2553**	**3.0000e-005**	**0.0000**	**0.2560**

3.7 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0904	0.0904	0.0000	0.0000	0.0905
Total	**4.0000e-005**	**5.0000e-005**	**5.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0904**	**0.0904**	**0.0000**	**0.0000**	**0.0905**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**1.0529**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.8000e-004	1.7900e-003	0.0000	3.6000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3478	0.3478	2.0000e-005	0.0000	0.3482
Total	**1.3000e-004**	**1.8000e-004**	**1.7900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3478**	**0.3478**	**2.0000e-005**	**0.0000**	**0.3482**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	8.7400e-003	7.4700e-003	1.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	1.0213	1.0213	1.1000e-004	0.0000	1.0236
Total	**1.0529**	**8.7400e-003**	**7.4700e-003**	**1.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**1.0213**	**1.0213**	**1.1000e-004**	**0.0000**	**1.0236**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.8000e-004	1.7900e-003	0.0000	3.6000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3478	0.3478	2.0000e-005	0.0000	0.3482
Total	**1.3000e-004**	**1.8000e-004**	**1.7900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.7000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3478**	**0.3478**	**2.0000e-005**	**0.0000**	**0.3482**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4056	2.8157	15.2983	0.0249	0.7168	0.0598	0.7765	0.2081	0.0598	0.2678	0.0000	1,123.3898	1,123.3898	0.1092	0.0000	1,125.6823
Unmitigated	1.4056	2.8157	15.2983	0.0249	0.7168	0.0598	0.7765	0.2081	0.0598	0.2678	0.0000	1,123.3898	1,123.3898	0.1092	0.0000	1,125.6823

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	839.99	839.99	839.99	2,133,195	2,133,195
Total	839.99	839.99	839.99	2,133,195	2,133,195

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.597085	0.111937	0.169880	0.057603	0.006031	0.005264	0.027471	0.003517	0.002007	0.010168	0.007576	0.000885	0.000576

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	340.2283	340.2283	0.0154	3.1800e-003	341.5381
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	340.2283	340.2283	0.0154	3.1800e-003	341.5381
NaturalGas Mitigated	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.3492	164.3492	3.1500e-003	3.0100e-003	165.3494
NaturalGas Unmitigated	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.3492	164.3492	3.1500e-003	3.0100e-003	165.3494

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	3.07979e+006	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.3492	164.3492	3.1500e-003	3.0100e-003	165.3494
Total		**0.0166**	**0.1510**	**0.1268**	**9.1000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.3492**	**164.3492**	**3.1500e-003**	**3.0100e-003**	**165.3494**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	3.07979e+006	0.0166	0.1510	0.1268	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.3492	164.3492	3.1500e-003	3.0100e-003	165.3494
Total		**0.0166**	**0.1510**	**0.1268**	**9.1000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.3492**	**164.3492**	**3.1500e-003**	**3.0100e-003**	**165.3494**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.16953e+006	340.2283	0.0154	3.1800e-003	341.5381
Total		**340.2283**	**0.0154**	**3.1800e-003**	**341.5381**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.16953e+006	340.2283	0.0154	3.1800e-003	341.5381
Total		**340.2283**	**0.0154**	**3.1800e-003**	**341.5381**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5746	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003
Unmitigated	0.5746	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003
Total	**0.5746**	**2.0000e-005**	**1.3300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.0300e-003**	**2.0300e-003**	**1.0000e-005**	**0.0000**	**2.2300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.0300e-003	2.0300e-003	1.0000e-005	0.0000	2.2300e-003
Total	**0.5746**	**2.0000e-005**	**1.3300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.0300e-003**	**2.0300e-003**	**1.0000e-005**	**0.0000**	**2.2300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.3850	0.1821	4.4400e-003	24.5846
Unmitigated	19.3850	0.1821	4.4500e-003	24.5874

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	5.56412 / 8.70286	19.3850	0.1821	4.4500e-003	24.5874
Total		**19.3850**	**0.1821**	**4.4500e-003**	**24.5874**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	5.56412 / 8.70286	19.3850	0.1821	4.4400e-003	24.5846
Total		**19.3850**	**0.1821**	**4.4400e-003**	**24.5846**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.9351	1.7691	0.0000	67.0864
Unmitigated	29.9351	1.7691	0.0000	67.0864

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	147.47	29.9351	1.7691	0.0000	67.0864
Total		**29.9351**	**1.7691**	**0.0000**	**67.0864**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	147.47	29.9351	1.7691	0.0000	67.0864
Total		**29.9351**	**1.7691**	**0.0000**	**67.0864**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

4. Boiler Modeling Assumptions and Emissions

Existing Site No.	Equipment Description	Make	Model #	Serial #	Unit Location	Age	Installed after AAU Occupation?	HP	MMBTU/hr	ROG [g/bhp-hr]/[lb/MMBtu][1]	NOx [g/bhp-hr]/[lb/MMBtu][1]	PM10 [g/bhp-hr]/[lb/MMBtu][1]	PM2.5 [g/bhp-hr]/[lb/MMBtu][1]	Operation hpd	ROG ppd	NOx ppd	PM10 ppd	PM2.5 ppd	ROG tpy	NOx tpy	PM10 tpy	PM2.5 tpy
1	No Boiler						No Boiler															
2	No Boiler						No Boiler															
3	Domestic Hot Water Boiler	AO Smith	HW670102	C0716603	Boiler Room	2007	Yes		2	0.0054	0.0490	0.0075	0.0075	24	0.26	2.35	0.36	0.36	0.05	0.43	0.07	0.07
4	No Boiler						No Boiler															
5	Domestic Hot Water Boiler	Laars	TL08199NSKD	A07JN0164	Boiler Room	1999	Yes		1.99	0.0054	0.0490	0.0075	0.0075	24	0.26	2.34	0.36	0.36	0.05	0.43	0.06	0.06
	Domestic Hot Water Boiler	Bosch	GWH1600PNG	88500130	Kitchen	2001	Yes		1.17	0.0054	0.0490	0.0075	0.0075	24	0.15	1.38	0.21	0.21	0.03	0.25	0.04	0.04
															0.41	3.72	0.57	0.57	0.07	0.68	0.10	0.10
														total	0.82	7.44	1.13	1.13	0.15	1.36	0.21	0.21
6	Heating Steam Boiler	Peerless	SC/DCT-09-WS	)8003-2002(	Mezzanine	2006	Yes		0.722	0.0054	0.0490	0.0075	0.0075	24	0.09	0.85	0.13	0.13	0.02	0.16	0.02	0.02
8	No Boiler						No Boiler															
9	Heating Boiler	American Radiator	W/F	W/F	Boiler Room	1994	No															
10	No Boiler						No Boiler															
11	Heating Steam Boiler	Peerless	G2-09-W/8-1	1-92509-099	ement Boiler R	1998	Yes		0.722	0.0054	0.0490	0.0075	0.0075	24	0.09	0.85	0.13	0.13	0.02	0.16	0.02	0.02
	Domestic Hot Water Boiler	Teledyne	'W0250CN120BAC	A96C10112	ement Boiler R	1996	No															
12	Heating Steam Boiler	Peerless	G108	W/F	Boiler Room	1994	No															
	Domestic Hot Water Boiler	Laars	W0325CN12C BE(	E03CG0197	Boiler Room	2003	Yes		1.99	0.0054	0.0490	0.0075	0.0075	24	0.26	2.34	0.36	0.36	0.05	0.43	0.06	0.06
13	Heating Steam Boiler	Peerless	LC-06-W/S	23436-2009	Boiler Room #:	2010	Yes		0.722	0.0054	0.0490	0.0075	0.0075	24	0.09	0.85	0.13	0.13	0.02	0.16	0.02	0.02
14	Domestic Hot Water Boiler	AO Smith	BC300760	'60D844422	Boiler Room	1984	No															
	Domestic Hot Water Boiler	AO Smith	BC300760	'60D844420	Boiler Room	1984	No															
	Heating Steam Boiler	Peerless	211A-A-6-S-1	.1A-6101-01	Boiler Room	1991	No															
16	No Boiler						No Boiler															
17	Domestic Hot Water Boiler	AO Smith	HW300932	9.324E+10	Boiler Room #	1999	No															
	Heating Steam Boiler	W/F	W/F	W/F	Boiler Room #	1974	No															
	Heating Steam Boiler	PSBC	2994-L	114239	Boiler Room #	1974	No															
	Heating Steam Boiler	PSBC	2994-L	115929	Boiler Room #	1974	No															
20	Pool Hot Water Boiler	AO Smith	HW520	E0717110	Basement	2009	Yes		0.52	0.0054	0.0490	0.0075	0.0075	24	0.07	0.61	0.09	0.09	0.01	0.11	0.02	0.02
	Domestic Hot Water Boiler	AO Smith	BC670780	ABS50943	Basement	1994	No															
23	No Boiler						No Boiler															
27	No Boiler						No Boiler															
28	No Boiler						No Boiler															
30	Generator Set	Onan	DFHD-3389077	B00006506?	ement Garage	2004	No															
	Engine	Cummins	QST 30-65	37191702	ement Garage	2004	No															
31	Heating Water Boiler	Ajax	WNG1500-W	59588	Roof	2001	No															
33	No Boiler						No Boiler															
34	Generator Set	Caterpillar	3512	24Z09711	oor Generator	2008	Yes	1250	-	0.54	6.544	0.193	0.193	0.136986301	0.20	2.47	0.07	0.07	0.04	0.45	0.01	0.01
	Engine	Caterpillar	3512DITA	24Z09711	oor Generator	2008	Yes															

Source:

1.Boiler and generator emission factors were obtained from AP-42 and CalEEMod Appendix D.

5. AAU Shuttle Bus Modeling Assumptions and Criteria Pollutant Emissions

Academy of the Arts University

Shuttle Bus Criteria Pollutant Emissions

Shuttle Stop	% total runs	# bus runs	miles/run	total mile/day	Emission (lbs/day) ROG	NO_X	PM_{10}	$PM_{2.5}$
620 Sutter	14.5%	42.4	5.1	216.4	0.110	0.669	4.584	0.300
860 Sutter	14.5%	42.4	5.1	216.4	0.110	0.669	4.584	0.300
701 Chestnut	1.9%	5.7	5.1	29.0	0.015	0.090	0.614	0.040
2300 Stockton (Northpoint)	1.9%	5.7	5.1	29.0	0.015	0.090	0.614	0.040
2209 Van Ness	2.6%	7.6	5.1	38.6	0.020	0.119	0.817	0.054
1849 Washington (Warehouse)	2.6%	7.6	5.1	38.6	0.020	0.119	0.817	0.054
79 New Montgomery	13.3%	38.9	5.1	198.4	0.101	0.614	4.202	0.275
60 Federal	12.2%	35.6	5.1	181.5	0.093	0.562	3.846	0.252
601 Brannan	12.2%	35.6	5.1	181.5	0.093	0.562	3.846	0.252
466 Townsend	12.2%	35.6	5.1	181.5	0.093	0.562	3.846	0.252
491 Post	7.2%	20.9	5.1	106.9	0.054	0.331	2.264	0.148
1727 Lombard	1.0%	2.9	5.1	14.6	0.007	0.045	0.309	0.020
1916 Octavia	0.8%	2.3	5.1	11.8	0.006	0.037	0.250	0.016
410 Bush	1.1%	3.3	5.1	16.8	0.009	0.052	0.357	0.023
Study Areas	N/A	292	5.90	1,723.70	0.879	5.435	36.515	2.392

Emission Factors

	Fleet Average		Van Only		Bus Only	
	g/mile	lbs/mile	g/mile	lbs/mile	g/mile	lbs/mile
ROG	0.23	0.00051	0.42	0.00093	0.19	0.00042
NO_X	1.40	0.00309	1.28	0.00282	1.43	0.00315
PM_{10}	9.61	0.02118	0.00	0.00001	11.69	0.02576
$PM_{2.5}$	0.63	0.00139	0.00	0.00000	0.76	0.00169

Source: EMFAC2011

6. CalEEMod Cumulative Year 2010 Outputs– Summer (pounds per day)

AAU Cumulative Year 2010

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	940.80	1000sqft	21.60	940,804.00	0
Apartments Mid Rise	502.00	Dwelling Unit	13.21	502,000.00	1053

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2010
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total dwelling units and square footage according to information provided in in Table A-1 of the ESTM

Construction Phase - Only operational emissions are used. Contruction emissions from this CalEEMod run were not used in the construction AQ analysis.

Architectural Coating -

Vehicle Trips - Vehicle trips are based on project specific traffic study. Shuttle trip emissions estimated separately.
1/29/16 adjustment to trip rates due to updated information.

Woodstoves - Assumed no fireplaces or woodstoves.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	7,191.67	5,393.75
tblEnergyUse	T24NG	35.21	26.40
tblFireplaces	NumberGas	276.10	0.00
tblFireplaces	NumberWood	70.28	0.00
tblLandUse	LandUseSquareFeet	940,800.00	940,804.00
tblLandUse	Population	1,436.00	1,053.00
tblProjectCharacteristics	OperationalYear	2014	2010
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	11.23	1.16
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	27.49	5.80
tblWoodstoves	NumberCatalytic	2.51	0.00
tblWoodstoves	NumberNoncatalytic	2.51	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.0468	69.6699	83.2174	0.1699	18.2360	3.3188	20.9917	9.9757	3.0533	12.5109	0.0000	15,045.4555	15,045.4555	1.9442	0.0000	15,086.2830
2018	6.9118	42.0433	74.8904	0.1695	8.5119	1.7880	10.3000	2.2850	1.6753	3.9602	0.0000	14,630.5581	14,630.5581	1.0177	0.0000	14,651.9288
2019	6.3383	38.2250	71.1686	0.1696	8.5127	1.5622	10.0748	2.2852	1.4636	3.7488	0.0000	14,271.9216	14,271.9216	0.9848	0.0000	14,292.6021
2020	307.5363	34.0938	67.1882	0.1696	8.5130	1.3661	9.8792	2.2853	1.2799	3.5652	0.0000	13,848.9654	13,848.9654	0.9583	0.0000	13,869.0904
Total	**328.8332**	**184.0319**	**296.4646**	**0.6786**	**43.7736**	**8.0351**	**51.2456**	**16.8311**	**7.4721**	**23.7851**	**0.0000**	**57,796.9006**	**57,796.9006**	**4.9050**	**0.0000**	**57,899.9044**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.0468	69.6699	83.2174	0.1699	18.2360	3.3188	20.9917	9.9757	3.0533	12.5109	0.0000	15,045.4555	15,045.4555	1.9442	0.0000	15,086.2830
2018	6.9118	42.0433	74.8904	0.1695	8.5119	1.7880	10.3000	2.2850	1.6753	3.9602	0.0000	14,630.5581	14,630.5581	1.0177	0.0000	14,651.9288
2019	6.3383	38.2250	71.1686	0.1696	8.5127	1.5622	10.0748	2.2852	1.4636	3.7488	0.0000	14,271.9216	14,271.9216	0.9848	0.0000	14,292.6021
2020	307.5363	34.0938	67.1882	0.1696	8.5130	1.3661	9.8792	2.2853	1.2799	3.5652	0.0000	13,848.9654	13,848.9654	0.9583	0.0000	13,869.0904
Total	**328.8332**	**184.0319**	**296.4646**	**0.6786**	**43.7736**	**8.0351**	**51.2456**	**16.8311**	**7.4721**	**23.7851**	**0.0000**	**57,796.9006**	**57,796.9006**	**4.9050**	**0.0000**	**57,899.9044**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.7450	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184	0.0000	74.7792	74.7792	0.0916	0.0000	76.7025
Energy	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.6058	9,371.6058	0.1796	0.1718	9,428.6399
Mobile	33.0857	70.8284	330.4472	0.4399	29.8806	1.4415	31.3221	8.0749	1.3220	9.3969		43,621.5978	43,621.5978	2.7189		43,678.6952
Total	**76.6898**	**79.1104**	**380.7709**	**0.4890**	**29.8806**	**2.2533**	**32.1340**	**8.0749**	**2.1339**	**10.2088**	**0.0000**	**53,067.9827**	**53,067.9827**	**2.9901**	**0.1718**	**53,184.0376**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.7450	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184	0.0000	74.7792	74.7792	0.0916	0.0000	76.7025
Energy	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.6058	9,371.6058	0.1796	0.1718	9,428.6399
Mobile	33.0857	70.8284	330.4472	0.4399	29.8806	1.4415	31.3221	8.0749	1.3220	9.3969		43,621.5978	43,621.5978	2.7189		43,678.6952
Total	**76.6898**	**79.1104**	**380.7709**	**0.4890**	**29.8806**	**2.2533**	**32.1340**	**8.0749**	**2.1339**	**10.2088**	**0.0000**	**53,067.9827**	**53,067.9827**	**2.9901**	**0.1718**	**53,184.0376**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	3/10/2017	5	50	
2	Site Preparation	Site Preparation	3/11/2017	4/21/2017	5	30	
3	Grading	Grading	4/22/2017	8/4/2017	5	75	
4	Building Construction	Building Construction	8/5/2017	6/5/2020	5	740	
5	Paving	Paving	6/6/2020	8/21/2020	5	55	
6	Architectural Coating	Architectural Coating	8/22/2020	11/6/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 1,016,550; Residential Outdoor: 338,850; Non-Residential Indoor: 1,411,206; Non-Residential Outdoor: 470,402 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	757.00	208.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	151.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0585	0.7068	1.8900e-003	0.1415	1.2100e-003	0.1427	0.0375	1.1100e-003	0.0386		152.5274	152.5274	7.3200e-003		152.6812
Total	**0.0507**	**0.0585**	**0.7068**	**1.8900e-003**	**0.1415**	**1.2100e-003**	**0.1427**	**0.0375**	**1.1100e-003**	**0.0386**		**152.5274**	**152.5274**	**7.3200e-003**		**152.6812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0585	0.7068	1.8900e-003	0.1415	1.2100e-003	0.1427	0.0375	1.1100e-003	0.0386		152.5274	152.5274	7.3200e-003		152.6812
Total	**0.0507**	**0.0585**	**0.7068**	**1.8900e-003**	**0.1415**	**1.2100e-003**	**0.1427**	**0.0375**	**1.1100e-003**	**0.0386**		**152.5274**	**152.5274**	**7.3200e-003**		**152.6812**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0702	0.8482	2.2600e-003	0.1698	1.4500e-003	0.1712	0.0450	1.3400e-003	0.0464		183.0329	183.0329	8.7900e-003		183.2174
Total	**0.0608**	**0.0702**	**0.8482**	**2.2600e-003**	**0.1698**	**1.4500e-003**	**0.1712**	**0.0450**	**1.3400e-003**	**0.0464**		**183.0329**	**183.0329**	**8.7900e-003**		**183.2174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0702	0.8482	2.2600e-003	0.1698	1.4500e-003	0.1712	0.0450	1.3400e-003	0.0464		183.0329	183.0329	8.7900e-003		183.2174
Total	**0.0608**	**0.0702**	**0.8482**	**2.2600e-003**	**0.1698**	**1.4500e-003**	**0.1712**	**0.0450**	**1.3400e-003**	**0.0464**		**183.0329**	**183.0329**	**8.7900e-003**		**183.2174**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3882	17.7699	29.4182	0.0479	1.3740	0.2554	1.6293	0.3918	0.2347	0.6265		4,708.1004	4,708.1004	0.0355		4,708.8459
Worker	2.5562	2.9502	35.6701	0.0952	7.1387	0.0609	7.1996	1.8934	0.0562	1.9496		7,697.5498	7,697.5498	0.3695		7,705.3098
Total	**4.9444**	**20.7202**	**65.0883**	**0.1431**	**8.5127**	**0.3163**	**8.8290**	**2.2852**	**0.2909**	**2.5761**		**12,405.6502**	**12,405.6502**	**0.4050**		**12,414.1557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3882	17.7699	29.4182	0.0479	1.3740	0.2554	1.6293	0.3918	0.2347	0.6265		4,708.100 4	4,708.100 4	0.0355		4,708.845 9
Worker	2.5562	2.9502	35.6701	0.0952	7.1387	0.0609	7.1996	1.8934	0.0562	1.9496		7,697.549 8	7,697.549 8	0.3695		7,705.309 8
Total	**4.9444**	**20.7202**	**65.0883**	**0.1431**	**8.5127**	**0.3163**	**8.8290**	**2.2852**	**0.2909**	**2.5761**		**12,405.65 02**	**12,405.65 02**	**0.4050**		**12,414.15 57**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.939 0	2,609.939 0	0.6387		2,623.351 7
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.939 0**	**2,609.939 0**	**0.6387**		**2,623.351 7**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9037	16.0929	24.7424	0.0475	1.3732	0.2340	1.6072	0.3916	0.2152	0.6068		4,607.7219	4,607.7219	0.0347		4,608.4498
Worker	2.3395	2.6895	32.6154	0.0952	7.1387	0.0598	7.1985	1.8934	0.0553	1.9487		7,412.8973	7,412.8973	0.3443		7,420.1273
Total	**4.2432**	**18.7824**	**57.3577**	**0.1427**	**8.5119**	**0.2938**	**8.8057**	**2.2850**	**0.2705**	**2.5554**		**12,020.6192**	**12,020.6192**	**0.3790**		**12,028.5771**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9037	16.0929	24.7424	0.0475	1.3732	0.2340	1.6072	0.3916	0.2152	0.6068		4,607.7219	4,607.7219	0.0347		4,608.4498
Worker	2.3395	2.6895	32.6154	0.0952	7.1387	0.0598	7.1985	1.8934	0.0553	1.9487		7,412.8973	7,412.8973	0.3443		7,420.1273
Total	**4.2432**	**18.7824**	**57.3577**	**0.1427**	**8.5119**	**0.2938**	**8.8057**	**2.2850**	**0.2705**	**2.5554**		**12,020.6192**	**12,020.6192**	**0.3790**		**12,028.5771**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.8291	14.7934	24.0457	0.0476	1.3739	0.2181	1.5920	0.3918	0.2005	0.5924		4,545.5708	4,545.5708	0.0340		4,546.2844
Worker	2.1576	2.4666	30.0026	0.0952	7.1387	0.0591	7.1978	1.8934	0.0548	1.9481		7,145.5890	7,145.5890	0.3229		7,152.3698
Total	**3.9867**	**17.2600**	**54.0482**	**0.1428**	**8.5127**	**0.2771**	**8.7898**	**2.2852**	**0.2553**	**2.5405**		**11,691.1598**	**11,691.1598**	**0.3569**		**11,698.6542**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.8291	14.7934	24.0457	0.0476	1.3739	0.2181	1.5920	0.3918	0.2005	0.5924		4,545.570 8	4,545.570 8	0.0340		4,546.284 4
Worker	2.1576	2.4666	30.0026	0.0952	7.1387	0.0591	7.1978	1.8934	0.0548	1.9481		7,145.589 0	7,145.589 0	0.3229		7,152.369 8
Total	**3.9867**	**17.2600**	**54.0482**	**0.1428**	**8.5127**	**0.2771**	**8.7898**	**2.2852**	**0.2553**	**2.5405**		**11,691.15 98**	**11,691.15 98**	**0.3569**		**11,698.65 42**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.479 9**	**2,542.479 9**	**0.6194**		**2,555.488 0**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6587	12.7229	22.4355	0.0476	1.3743	0.1944	1.5687	0.3919	0.1788	0.5707		4,448.861 2	4,448.861 2	0.0330		4,449.553 5
Worker	2.0238	2.2869	27.9443	0.0952	7.1387	0.0589	7.1977	1.8934	0.0546	1.9480		6,857.624 3	6,857.624 3	0.3059		6,864.048 9
Total	**3.6825**	**15.0098**	**50.3798**	**0.1428**	**8.5130**	**0.2533**	**8.7663**	**2.2853**	**0.2335**	**2.5188**		**11,306.48 55**	**11,306.48 55**	**0.3389**		**11,313.60 24**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.479 9**	**2,542.479 9**	**0.6194**		**2,555.488 0**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6587	12.7229	22.4355	0.0476	1.3743	0.1944	1.5687	0.3919	0.1788	0.5707		4,448.861 2	4,448.861 2	0.0330		4,449.553 5
Worker	2.0238	2.2869	27.9443	0.0952	7.1387	0.0589	7.1977	1.8934	0.0546	1.9480		6,857.624 3	6,857.624 3	0.3059		6,864.048 9
Total	**3.6825**	**15.0098**	**50.3798**	**0.1428**	**8.5130**	**0.2533**	**8.7663**	**2.2853**	**0.2335**	**2.5188**		**11,306.48 55**	**11,306.48 55**	**0.3389**		**11,313.60 24**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.757 1**	**2,160.757 1**	**0.6988**		**2,175.432 6**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0453	0.5537	1.8900e-003	0.1415	1.1700e-003	0.1426	0.0375	1.0800e-003	0.0386		135.8842	135.8842	6.0600e-003		136.0115
Total	**0.0401**	**0.0453**	**0.5537**	**1.8900e-003**	**0.1415**	**1.1700e-003**	**0.1426**	**0.0375**	**1.0800e-003**	**0.0386**		**135.8842**	**135.8842**	**6.0600e-003**		**136.0115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0453	0.5537	1.8900e-003	0.1415	1.1700e-003	0.1426	0.0375	1.0800e-003	0.0386		135.8842	135.8842	6.0600e-003		136.0115
Total	**0.0401**	**0.0453**	**0.5537**	**1.8900e-003**	**0.1415**	**1.1700e-003**	**0.1426**	**0.0375**	**1.0800e-003**	**0.0386**		**135.8842**	**135.8842**	**6.0600e-003**		**136.0115**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	306.8904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**307.1326**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4037	0.4562	5.5741	0.0190	1.4240	0.0118	1.4357	0.3777	0.0109	0.3886		1,367.9013	1,367.9013	0.0610		1,369.1828
Total	**0.4037**	**0.4562**	**5.5741**	**0.0190**	**1.4240**	**0.0118**	**1.4357**	**0.3777**	**0.0109**	**0.3886**		**1,367.9013**	**1,367.9013**	**0.0610**		**1,369.1828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	306.8904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**307.1326**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4037	0.4562	5.5741	0.0190	1.4240	0.0118	1.4357	0.3777	0.0109	0.3886		1,367.9013	1,367.9013	0.0610		1,369.1828
Total	**0.4037**	**0.4562**	**5.5741**	**0.0190**	**1.4240**	**0.0118**	**1.4357**	**0.3777**	**0.0109**	**0.3886**		**1,367.9013**	**1,367.9013**	**0.0610**		**1,369.1828**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.0857	70.8284	330.4472	0.4399	29.8806	1.4415	31.3221	8.0749	1.3220	9.3969		43,621.5978	43,621.5978	2.7189		43,678.6952
Unmitigated	33.0857	70.8284	330.4472	0.4399	29.8806	1.4415	31.3221	8.0749	1.3220	9.3969		43,621.5978	43,621.5978	2.7189		43,678.6952

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Junior College (2Yr)	5,456.64	1,091.33	0.00	10,294,023	10,294,023
Total	5,456.64	1,091.33	0.00	10,294,023	10,294,023

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.618828	0.059301	0.151819	0.086327	0.028684	0.003629	0.023451	0.002900	0.003167	0.011393	0.009452	0.000564	0.000484

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.605 8	9,371.605 8	0.1796	0.1718	9,428.639 9
NaturalGas Unmitigated	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.605 8	9,371.605 8	0.1796	0.1718	9,428.639 9

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	69954.6	0.7544	6.8583	5.7610	0.0412		0.5212	0.5212		0.5212	0.5212		8,229.950 2	8,229.950 2	0.1577	0.1509	8,280.036 3
Apartments Mid Rise	9704.07	0.1047	0.8943	0.3806	5.7100e-003		0.0723	0.0723		0.0723	0.0723		1,141.655 6	1,141.655 6	0.0219	0.0209	1,148.603 5
Total		**0.8591**	**7.7526**	**6.1415**	**0.0469**		**0.5935**	**0.5935**		**0.5935**	**0.5935**		**9,371.605 8**	**9,371.605 8**	**0.1796**	**0.1718**	**9,428.639 9**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.70407	0.1047	0.8943	0.3806	5.7100e-003		0.0723	0.0723		0.0723	0.0723		1,141.6556	1,141.6556	0.0219	0.0209	1,148.6035
Junior College (2Yr)	69.9546	0.7544	6.8583	5.7610	0.0412		0.5212	0.5212		0.5212	0.5212		8,229.9502	8,229.9502	0.1577	0.1509	8,280.0363
Total		**0.8591**	**7.7526**	**6.1415**	**0.0469**		**0.5935**	**0.5935**		**0.5935**	**0.5935**		**9,371.6058**	**9,371.6058**	**0.1796**	**0.1718**	**9,428.6399**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	42.7450	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184	0.0000	74.7792	74.7792	0.0916	0.0000	76.7025
Unmitigated	42.7450	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184	0.0000	74.7792	74.7792	0.0916	0.0000	76.7025

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	30.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5926	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184		74.7792	74.7792	0.0916		76.7025
Total	**42.7450**	**0.5294**	**44.1822**	**2.1900e-003**		**0.2184**	**0.2184**		**0.2184**	**0.2184**	**0.0000**	**74.7792**	**74.7792**	**0.0916**	**0.0000**	**76.7025**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	10.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	30.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5926	0.5294	44.1822	2.1900e-003		0.2184	0.2184		0.2184	0.2184		74.7792	74.7792	0.0916		76.7025
Total	**42.7450**	**0.5294**	**44.1822**	**2.1900e-003**		**0.2184**	**0.2184**		**0.2184**	**0.2184**	**0.0000**	**74.7792**	**74.7792**	**0.0916**	**0.0000**	**76.7025**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

7. CalEEMod Cumulative Year 2010 Outputs– Annual (tons per year)

AAU Cumulative Year 2010

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	940.80	1000sqft	21.60	940,804.00	0
Apartments Mid Rise	502.00	Dwelling Unit	13.21	502,000.00	1053

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2010
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total dwelling units and square footage according to information provided in in Table A-1 of the ESTM

Construction Phase - Only operational emissions are used. Contruction emissions from this CalEEMod run were not used in the construction AQ analysis.

Architectural Coating -

Vehicle Trips - Vehicle trips are based on project specific traffic study. Shuttle trip emissions estimated separately.
1/29/16 adjustment to trip rates due to updated information.

Woodstoves - Assumed no fireplaces or woodstoves.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	7,191.67	5,393.75
tblEnergyUse	T24NG	35.21	26.40
tblFireplaces	NumberGas	276.10	0.00
tblFireplaces	NumberWood	70.28	0.00
tblLandUse	LandUseSquareFeet	940,800.00	940,804.00
tblLandUse	Population	1,436.00	1,053.00
tblProjectCharacteristics	OperationalYear	2014	2010
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	11.23	1.16
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	27.49	5.80
tblWoodstoves	NumberCatalytic	2.51	0.00
tblWoodstoves	NumberNoncatalytic	2.51	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8422	6.9947	7.8864	0.0127	1.0392	0.3291	1.3684	0.4031	0.3052	0.7083	0.0000	1,067.6895	1,067.6895	0.1585	0.0000	1,071.0177
2018	0.9192	5.6242	10.4439	0.0214	1.0696	0.2335	1.3030	0.2881	0.2188	0.5068	0.0000	1,679.7970	1,679.7970	0.1205	0.0000	1,682.3281
2019	0.8428	5.1144	9.9452	0.0214	1.0697	0.2040	1.2737	0.2881	0.1911	0.4792	0.0000	1,639.1452	1,639.1452	0.1166	0.0000	1,641.5946
2020	8.8268	2.4160	4.6851	0.0105	0.5045	0.1010	0.6055	0.1358	0.0944	0.2302	0.0000	785.1210	785.1210	0.0688	0.0000	786.5657
Total	**11.4309**	**20.1493**	**32.9607**	**0.0660**	**3.6830**	**0.8676**	**4.5505**	**1.1150**	**0.8095**	**1.9245**	**0.0000**	**5,171.7528**	**5,171.7528**	**0.4644**	**0.0000**	**5,181.5060**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8422	6.9947	7.8864	0.0127	1.0392	0.3291	1.3684	0.4031	0.3052	0.7083	0.0000	1,067.6890	1,067.6890	0.1585	0.0000	1,071.0171
2018	0.9192	5.6242	10.4439	0.0214	1.0696	0.2335	1.3030	0.2881	0.2188	0.5068	0.0000	1,679.7966	1,679.7966	0.1205	0.0000	1,682.3277
2019	0.8428	5.1144	9.9452	0.0214	1.0697	0.2040	1.2737	0.2881	0.1911	0.4792	0.0000	1,639.1448	1,639.1448	0.1166	0.0000	1,641.5942
2020	8.8268	2.4160	4.6851	0.0105	0.5045	0.1010	0.6055	0.1358	0.0944	0.2302	0.0000	785.1208	785.1208	0.0688	0.0000	786.5655
Total	**11.4309**	**20.1493**	**32.9607**	**0.0660**	**3.6830**	**0.8676**	**4.5505**	**1.1150**	**0.8095**	**1.9245**	**0.0000**	**5,171.7512**	**5,171.7512**	**0.4644**	**0.0000**	**5,181.5045**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.6537	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625
Energy	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	4,888.5413	4,888.5413	0.1806	0.0597	4,910.8302
Mobile	4.4687	10.3254	45.8361	0.0567	3.8907	0.1954	4.0862	1.0551	0.1792	1.2344	0.0000	5,095.2023	5,095.2023	0.3331	0.0000	5,102.1981
Waste						0.0000	0.0000		0.0000	0.0000	295.1407	0.0000	295.1407	17.4423	0.0000	661.4294
Water						0.0000	0.0000		0.0000	0.0000	25.0163	218.6075	243.6238	2.5793	0.0627	317.2306
Total	**12.2791**	**11.7879**	**50.9333**	**0.0654**	**3.8907**	**0.3234**	**4.2141**	**1.0551**	**0.3072**	**1.3623**	**320.1571**	**10,208.4566**	**10,528.6136**	**20.5429**	**0.1224**	**10,997.9509**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.6537	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625
Energy	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	4,888.5413	4,888.5413	0.1806	0.0597	4,910.8302
Mobile	4.4687	10.3254	45.8361	0.0567	3.8907	0.1954	4.0862	1.0551	0.1792	1.2344	0.0000	5,095.2023	5,095.2023	0.3331	0.0000	5,102.1981
Waste						0.0000	0.0000		0.0000	0.0000	295.1407	0.0000	295.1407	17.4423	0.0000	661.4294
Water						0.0000	0.0000		0.0000	0.0000	25.0163	218.6075	243.6238	2.5788	0.0626	317.1907
Total	**12.2791**	**11.7879**	**50.9333**	**0.0654**	**3.8907**	**0.3234**	**4.2141**	**1.0551**	**0.3072**	**1.3623**	**320.1571**	**10,208.4566**	**10,528.6136**	**20.5424**	**0.1223**	**10,997.9110**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	3/10/2017	5	50	
2	Site Preparation	Site Preparation	3/11/2017	4/21/2017	5	30	
3	Grading	Grading	4/22/2017	8/4/2017	5	75	
4	Building Construction	Building Construction	8/5/2017	6/5/2020	5	740	
5	Paving	Paving	6/6/2020	8/21/2020	5	55	
6	Architectural Coating	Architectural Coating	8/22/2020	11/6/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 1,016,550; Residential Outdoor: 338,850; Non-Residential Indoor: 1,411,206; Non-Residential Outdoor: 470,402 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	757.00	208.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	151.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	1.0674	0.8473	1.0000e-003		0.0531	0.0531		0.0495	0.0495	0.0000	91.5455	91.5455	0.0251	0.0000	92.0729
Total	**0.1012**	**1.0674**	**0.8473**	**1.0000e-003**		**0.0531**	**0.0531**		**0.0495**	**0.0495**	**0.0000**	**91.5455**	**91.5455**	**0.0251**	**0.0000**	**92.0729**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.6800e-003	0.0168	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	3.2606	3.2606	1.7000e-004	0.0000	3.2641
Total	**1.2200e-003**	**1.6800e-003**	**0.0168**	**4.0000e-005**	**3.4000e-003**	**3.0000e-005**	**3.4300e-003**	**9.0000e-004**	**3.0000e-005**	**9.3000e-004**	**0.0000**	**3.2606**	**3.2606**	**1.7000e-004**	**0.0000**	**3.2641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	1.0674	0.8473	1.0000e-003		0.0531	0.0531		0.0495	0.0495	0.0000	91.5454	91.5454	0.0251	0.0000	92.0728
Total	**0.1012**	**1.0674**	**0.8473**	**1.0000e-003**		**0.0531**	**0.0531**		**0.0495**	**0.0495**	**0.0000**	**91.5454**	**91.5454**	**0.0251**	**0.0000**	**92.0728**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.6800e-003	0.0168	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	3.2606	3.2606	1.7000e-004	0.0000	3.2641
Total	**1.2200e-003**	**1.6800e-003**	**0.0168**	**4.0000e-005**	**3.4000e-003**	**3.0000e-005**	**3.4300e-003**	**9.0000e-004**	**3.0000e-005**	**9.3000e-004**	**0.0000**	**3.2606**	**3.2606**	**1.7000e-004**	**0.0000**	**3.2641**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7763	0.5910	5.9000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	54.4731	54.4731	0.0167	0.0000	54.8236
Total	**0.0726**	**0.7763**	**0.5910**	**5.9000e-004**	**0.2710**	**0.0413**	**0.3123**	**0.1490**	**0.0380**	**0.1870**	**0.0000**	**54.4731**	**54.4731**	**0.0167**	**0.0000**	**54.8236**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.2100e-003	0.0121	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3476	2.3476	1.2000e-004	0.0000	2.3501
Total	**8.8000e-004**	**1.2100e-003**	**0.0121**	**3.0000e-005**	**2.4500e-003**	**2.0000e-005**	**2.4700e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.3476**	**2.3476**	**1.2000e-004**	**0.0000**	**2.3501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7763	0.5910	5.9000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	54.4730	54.4730	0.0167	0.0000	54.8235
Total	**0.0726**	**0.7763**	**0.5910**	**5.9000e-004**	**0.2710**	**0.0413**	**0.3123**	**0.1490**	**0.0380**	**0.1870**	**0.0000**	**54.4730**	**54.4730**	**0.0167**	**0.0000**	**54.8235**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.2100e-003	0.0121	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3476	2.3476	1.2000e-004	0.0000	2.3501
Total	**8.8000e-004**	**1.2100e-003**	**0.0121**	**3.0000e-005**	**2.4500e-003**	**2.0000e-005**	**2.4700e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.3476**	**2.3476**	**1.2000e-004**	**0.0000**	**2.3501**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2287	2.6097	1.7552	2.3100e-003		0.1244	0.1244		0.1144	0.1144	0.0000	214.7772	214.7772	0.0658	0.0000	216.1592
Total	**0.2287**	**2.6097**	**1.7552**	**2.3100e-003**	**0.3253**	**0.1244**	**0.4496**	**0.1349**	**0.1144**	**0.2493**	**0.0000**	**214.7772**	**214.7772**	**0.0658**	**0.0000**	**216.1592**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4400e-003	3.3600e-003	0.0336	9.0000e-005	6.8000e-003	6.0000e-005	6.8600e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.5211	6.5211	3.3000e-004	0.0000	6.5281
Total	**2.4400e-003**	**3.3600e-003**	**0.0336**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8100e-003**	**6.0000e-005**	**1.8700e-003**	**0.0000**	**6.5211**	**6.5211**	**3.3000e-004**	**0.0000**	**6.5281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2287	2.6097	1.7552	2.3100e-003		0.1244	0.1244		0.1144	0.1144	0.0000	214.7770	214.7770	0.0658	0.0000	216.1589
Total	**0.2287**	**2.6097**	**1.7552**	**2.3100e-003**	**0.3253**	**0.1244**	**0.4496**	**0.1349**	**0.1144**	**0.2493**	**0.0000**	**214.7770**	**214.7770**	**0.0658**	**0.0000**	**216.1589**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4400e-003	3.3600e-003	0.0336	9.0000e-005	6.8000e-003	6.0000e-005	6.8600e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.5211	6.5211	3.3000e-004	0.0000	6.5281
Total	**2.4400e-003**	**3.3600e-003**	**0.0336**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8100e-003**	**6.0000e-005**	**1.8700e-003**	**0.0000**	**6.5211**	**6.5211**	**3.3000e-004**	**0.0000**	**6.5281**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1629	1.3863	0.9518	1.4100e-003		0.0935	0.0935		0.0878	0.0878	0.0000	125.7265	125.7265	0.0309	0.0000	126.3763
Total	**0.1629**	**1.3863**	**0.9518**	**1.4100e-003**		**0.0935**	**0.0935**		**0.0878**	**0.0878**	**0.0000**	**125.7265**	**125.7265**	**0.0309**	**0.0000**	**126.3763**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1428	0.9710	1.8966	2.5100e-003	0.0698	0.0135	0.0833	0.0200	0.0124	0.0324	0.0000	223.4832	223.4832	1.7100e-003	0.0000	223.5191
Worker	0.1295	0.1778	1.7820	4.7100e-003	0.3605	3.2000e-003	0.3637	0.0959	2.9500e-003	0.0989	0.0000	345.5547	345.5547	0.0176	0.0000	345.9243
Total	**0.2723**	**1.1488**	**3.6786**	**7.2200e-003**	**0.4303**	**0.0167**	**0.4470**	**0.1159**	**0.0153**	**0.1312**	**0.0000**	**569.0379**	**569.0379**	**0.0193**	**0.0000**	**569.4434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1629	1.3863	0.9518	1.4100e-003		0.0935	0.0935		0.0878	0.0878	0.0000	125.7264	125.7264	0.0309	0.0000	126.3762
Total	**0.1629**	**1.3863**	**0.9518**	**1.4100e-003**		**0.0935**	**0.0935**		**0.0878**	**0.0878**	**0.0000**	**125.7264**	**125.7264**	**0.0309**	**0.0000**	**126.3762**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1428	0.9710	1.8966	2.5100e-003	0.0698	0.0135	0.0833	0.0200	0.0124	0.0324	0.0000	223.4832	223.4832	1.7100e-003	0.0000	223.5191
Worker	0.1295	0.1778	1.7820	4.7100e-003	0.3605	3.2000e-003	0.3637	0.0959	2.9500e-003	0.0989	0.0000	345.5547	345.5547	0.0176	0.0000	345.9243
Total	**0.2723**	**1.1488**	**3.6786**	**7.2200e-003**	**0.4303**	**0.0167**	**0.4470**	**0.1159**	**0.0153**	**0.1312**	**0.0000**	**569.0379**	**569.0379**	**0.0193**	**0.0000**	**569.4434**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2774	2.1857	4.1216	6.1900e-003	0.1735	0.0307	0.2041	0.0497	0.0282	0.0779	0.0000	543.6593	543.6593	4.1500e-003	0.0000	543.7465
Worker	0.2935	0.4029	4.0343	0.0117	0.8961	7.8000e-003	0.9039	0.2384	7.2200e-003	0.2456	0.0000	827.1533	827.1533	0.0408	0.0000	828.0092
Total	**0.5709**	**2.5886**	**8.1559**	**0.0179**	**1.0696**	**0.0385**	**1.1080**	**0.2881**	**0.0354**	**0.3235**	**0.0000**	**1,370.8126**	**1,370.8126**	**0.0449**	**0.0000**	**1,371.7558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2774	2.1857	4.1216	6.1900e-003	0.1735	0.0307	0.2041	0.0497	0.0282	0.0779	0.0000	543.6593	543.6593	4.1500e-003	0.0000	543.7465
Worker	0.2935	0.4029	4.0343	0.0117	0.8961	7.8000e-003	0.9039	0.2384	7.2200e-003	0.2456	0.0000	827.1533	827.1533	0.0408	0.0000	828.0092
Total	**0.5709**	**2.5886**	**8.1559**	**0.0179**	**1.0696**	**0.0385**	**1.1080**	**0.2881**	**0.0354**	**0.3235**	**0.0000**	**1,370.8126**	**1,370.8126**	**0.0449**	**0.0000**	**1,371.7558**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2661	2.0090	4.0139	6.2100e-003	0.1736	0.0286	0.2021	0.0497	0.0263	0.0760	0.0000	536.3290	536.3290	4.0700e-003	0.0000	536.4146
Worker	0.2698	0.3695	3.6971	0.0117	0.8961	7.7100e-003	0.9038	0.2384	7.1500e-003	0.2455	0.0000	797.2860	797.2860	0.0382	0.0000	798.0887
Total	**0.5359**	**2.3785**	**7.7110**	**0.0179**	**1.0697**	**0.0363**	**1.1060**	**0.2881**	**0.0334**	**0.3215**	**0.0000**	**1,333.6150**	**1,333.6150**	**0.0423**	**0.0000**	**1,334.5033**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2661	2.0090	4.0139	6.2100e-003	0.1736	0.0286	0.2021	0.0497	0.0263	0.0760	0.0000	536.3290	536.3290	4.0700e-003	0.0000	536.4146
Worker	0.2698	0.3695	3.6971	0.0117	0.8961	7.7100e-003	0.9038	0.2384	7.1500e-003	0.2455	0.0000	797.2860	797.2860	0.0382	0.0000	798.0887
Total	**0.5359**	**2.3785**	**7.7110**	**0.0179**	**1.0697**	**0.0363**	**1.1060**	**0.2881**	**0.0334**	**0.3215**	**0.0000**	**1,333.6150**	**1,333.6150**	**0.0423**	**0.0000**	**1,334.5033**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1193	1.0782	0.9497	1.5100e-003		0.0629	0.0629		0.0591	0.0591	0.0000	130.3172	130.3172	0.0318	0.0000	130.9839
Total	**0.1193**	**1.0782**	**0.9497**	**1.5100e-003**		**0.0629**	**0.0629**		**0.0591**	**0.0591**	**0.0000**	**130.3172**	**130.3172**	**0.0318**	**0.0000**	**130.9839**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1037	0.7482	1.6443	2.6900e-003	0.0752	0.0110	0.0862	0.0215	0.0101	0.0317	0.0000	227.2623	227.2623	1.7100e-003	0.0000	227.2983
Worker	0.1094	0.1483	1.4873	5.0700e-003	0.3880	3.3300e-003	0.3913	0.1032	3.0900e-003	0.1063	0.0000	331.2584	331.2584	0.0157	0.0000	331.5877
Total	**0.2131**	**0.8965**	**3.1316**	**7.7600e-003**	**0.4631**	**0.0144**	**0.4775**	**0.1247**	**0.0132**	**0.1380**	**0.0000**	**558.5207**	**558.5207**	**0.0174**	**0.0000**	**558.8860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1193	1.0782	0.9497	1.5100e-003		0.0629	0.0629		0.0591	0.0591	0.0000	130.3170	130.3170	0.0318	0.0000	130.9838
Total	**0.1193**	**1.0782**	**0.9497**	**1.5100e-003**		**0.0629**	**0.0629**		**0.0591**	**0.0591**	**0.0000**	**130.3170**	**130.3170**	**0.0318**	**0.0000**	**130.9838**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1037	0.7482	1.6443	2.6900e-003	0.0752	0.0110	0.0862	0.0215	0.0101	0.0317	0.0000	227.2623	227.2623	1.7100e-003	0.0000	227.2983
Worker	0.1094	0.1483	1.4873	5.0700e-003	0.3880	3.3300e-003	0.3913	0.1032	3.0900e-003	0.1063	0.0000	331.2584	331.2584	0.0157	0.0000	331.5877
Total	**0.2131**	**0.8965**	**3.1316**	**7.7600e-003**	**0.4631**	**0.0144**	**0.4775**	**0.1247**	**0.0132**	**0.1380**	**0.0000**	**558.5207**	**558.5207**	**0.0174**	**0.0000**	**558.8860**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0366	0.3791	0.3947	6.1000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	53.9057	53.9057	0.0174	0.0000	54.2718
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0366**	**0.3791**	**0.3947**	**6.1000e-004**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**53.9057**	**53.9057**	**0.0174**	**0.0000**	**54.2718**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	1.4300e-003	0.0143	5.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.1948	3.1948	1.5000e-004	0.0000	3.1980
Total	**1.0600e-003**	**1.4300e-003**	**0.0143**	**5.0000e-005**	**3.7400e-003**	**3.0000e-005**	**3.7700e-003**	**1.0000e-003**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**3.1948**	**3.1948**	**1.5000e-004**	**0.0000**	**3.1980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0366	0.3791	0.3947	6.1000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	53.9056	53.9056	0.0174	0.0000	54.2717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0366**	**0.3791**	**0.3947**	**6.1000e-004**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**53.9056**	**53.9056**	**0.0174**	**0.0000**	**54.2717**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	1.4300e-003	0.0143	5.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.1948	3.1948	1.5000e-004	0.0000	3.1980
Total	**1.0600e-003**	**1.4300e-003**	**0.0143**	**5.0000e-005**	**3.7400e-003**	**3.0000e-005**	**3.7700e-003**	**1.0000e-003**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**3.1948**	**3.1948**	**1.5000e-004**	**0.0000**	**3.1980**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.4395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0215	7.0215	5.4000e-004	0.0000	7.0329
Total	**8.4462**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0215**	**7.0215**	**5.4000e-004**	**0.0000**	**7.0329**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0144	0.1444	4.9000e-004	0.0377	3.2000e-004	0.0380	0.0100	3.0000e-004	0.0103	0.0000	32.1612	32.1612	1.5200e-003	0.0000	32.1932
Total	**0.0106**	**0.0144**	**0.1444**	**4.9000e-004**	**0.0377**	**3.2000e-004**	**0.0380**	**0.0100**	**3.0000e-004**	**0.0103**	**0.0000**	**32.1612**	**32.1612**	**1.5200e-003**	**0.0000**	**32.1932**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.4395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0214	7.0214	5.4000e-004	0.0000	7.0329
Total	**8.4462**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0214**	**7.0214**	**5.4000e-004**	**0.0000**	**7.0329**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0144	0.1444	4.9000e-004	0.0377	3.2000e-004	0.0380	0.0100	3.0000e-004	0.0103	0.0000	32.1612	32.1612	1.5200e-003	0.0000	32.1932
Total	**0.0106**	**0.0144**	**0.1444**	**4.9000e-004**	**0.0377**	**3.2000e-004**	**0.0380**	**0.0100**	**3.0000e-004**	**0.0103**	**0.0000**	**32.1612**	**32.1612**	**1.5200e-003**	**0.0000**	**32.1932**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.4687	10.3254	45.8361	0.0567	3.8907	0.1954	4.0862	1.0551	0.1792	1.2344	0.0000	5,095.2023	5,095.2023	0.3331	0.0000	5,102.1981
Unmitigated	4.4687	10.3254	45.8361	0.0567	3.8907	0.1954	4.0862	1.0551	0.1792	1.2344	0.0000	5,095.2023	5,095.2023	0.3331	0.0000	5,102.1981

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Junior College (2Yr)	5,456.64	1,091.33	0.00	10,294,023	10,294,023
Total	5,456.64	1,091.33	0.00	10,294,023	10,294,023

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.618828	0.059301	0.151819	0.086327	0.028684	0.003629	0.023451	0.002900	0.003167	0.011393	0.009452	0.000564	0.000484

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,336.966 9	3,336.966 9	0.1509	0.0312	3,349.813 2
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,336.966 9	3,336.966 9	0.1509	0.0312	3,349.813 2
NaturalGas Mitigated	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	1,551.574 5	1,551.574 5	0.0297	0.0285	1,561.017 1
NaturalGas Unmitigated	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	1,551.574 5	1,551.574 5	0.0297	0.0285	1,561.017 1

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.54199e +006	0.0191	0.1632	0.0695	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.0139	189.0139	3.6200e-003	3.4700e-003	190.1642
Junior College (2Yr)	2.55334e +007	0.1377	1.2516	1.0514	7.5100e-003		0.0951	0.0951		0.0951	0.0951	0.0000	1,362.560 6	1,362.560 6	0.0261	0.0250	1,370.852 9
Total		**0.1568**	**1.4149**	**1.1208**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**	**0.0000**	**1,551.574 5**	**1,551.574 5**	**0.0297**	**0.0285**	**1,561.017 1**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.54199e+006	0.0191	0.1632	0.0695	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.0139	189.0139	3.6200e-003	3.4700e-003	190.1642
Junior College (2Yr)	2.55334e+007	0.1377	1.2516	1.0514	7.5100e-003		0.0951	0.0951		0.0951	0.0951	0.0000	1,362.5606	1,362.5606	0.0261	0.0250	1,370.8529
Total		**0.1568**	**1.4149**	**1.1208**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**	**0.0000**	**1,551.5745**	**1,551.5745**	**0.0297**	**0.0285**	**1,561.0171**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.77574e+006	516.5845	0.0234	4.8300e-003	518.5732
Junior College (2Yr)	9.69499e+006	2,820.3824	0.1275	0.0264	2,831.2400
Total		**3,336.9669**	**0.1509**	**0.0312**	**3,349.8132**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.77574e +006	516.5845	0.0234	4.8300e-003	518.5732
Junior College (2Yr)	9.69499e +006	2,820.382 4	0.1275	0.0264	2,831.240 0
Total		**3,336.966 9**	**0.1509**	**0.0312**	**3,349.813 2**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.6537	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625
Unmitigated	7.6537	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8754					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1433	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625
Total	**7.6536**	**0.0476**	**3.9764**	**2.0000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**6.1055**	**6.1055**	**7.4800e-003**	**0.0000**	**6.2625**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8754					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1433	0.0476	3.9764	2.0000e-004		0.0197	0.0197		0.0197	0.0197	0.0000	6.1055	6.1055	7.4800e-003	0.0000	6.2625
Total	**7.6536**	**0.0476**	**3.9764**	**2.0000e-004**		**0.0197**	**0.0197**		**0.0197**	**0.0197**	**0.0000**	**6.1055**	**6.1055**	**7.4800e-003**	**0.0000**	**6.2625**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	243.6238	2.5788	0.0626	317.1907
Unmitigated	243.6238	2.5793	0.0627	317.2306

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	32.7073 / 20.6198	82.8568	1.0691	0.0258	113.3181
Junior College (2Yr)	46.1453 / 72.176	160.7671	1.5103	0.0369	203.9125
Total		**243.6238**	**2.5793**	**0.0627**	**317.2306**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	32.7073 / 20.6198	82.8568	1.0689	0.0258	113.3015
Junior College (2Yr)	46.1453 / 72.176	160.7671	1.5100	0.0368	203.8892
Total		**243.6238**	**2.5788**	**0.0626**	**317.1907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	295.1407	17.4423	0.0000	661.4294
Unmitigated	295.1407	17.4423	0.0000	661.4294

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	230.92	46.8747	2.7702	0.0000	105.0492
Junior College (2Yr)	1223.04	248.2661	14.6721	0.0000	556.3803
Total		**295.1407**	**17.4423**	**0.0000**	**661.4294**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	230.92	46.8747	2.7702	0.0000	105.0492
Junior College (2Yr)	1223.04	248.2661	14.6721	0.0000	556.3803
Total		**295.1407**	**17.4423**	**0.0000**	**661.4294**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

8. CalEEMod Cumulative Year 2016 Outputs– Summer (pounds per day)

AAU Cumulative Year 2016

San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	940.80	1000sqft	21.60	940,804.00	0
Apartments Mid Rise	502.00	Dwelling Unit	13.21	502,000.00	1053

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total dwelling units and square footage according to information provided in in Table A-1 of the ESTM

Construction Phase - Only operational emissions are used. Contruction emissions from this CalEEMod run were not used in the construction AQ analysis.

Architectural Coating -

Vehicle Trips - Vehicle trips are based on project specific traffic study. Shuttle trip emissions estimated separately.
1/29/16 adjustment to trip rates due to updated information.

Woodstoves - Assumed no fireplaces or woodstoves.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	250
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	250
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	7,191.67	5,393.80
tblEnergyUse	T24NG	35.21	26.40
tblFireplaces	NumberGas	276.10	0.00
tblFireplaces	NumberWood	70.28	0.00
tblLandUse	LandUseSquareFeet	940,800.00	940,804.00
tblLandUse	Population	1,436.00	1,053.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	11.23	1.16
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	27.49	5.80
tblWoodstoves	NumberCatalytic	2.51	0.00
tblWoodstoves	NumberNoncatalytic	2.51	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.0468	69.6699	83.2174	0.1699	18.2360	3.3188	20.9917	9.9757	3.0533	12.5109	0.0000	15,045.4555	15,045.4555	1.9442	0.0000	15,086.2830
2018	6.9118	42.0433	74.8904	0.1695	8.5119	1.7880	10.3000	2.2850	1.6753	3.9602	0.0000	14,630.5581	14,630.5581	1.0177	0.0000	14,651.9288
2019	6.3383	38.2250	71.1686	0.1696	8.5127	1.5622	10.0748	2.2852	1.4636	3.7488	0.0000	14,271.9216	14,271.9216	0.9848	0.0000	14,292.6021
2020	307.5363	34.0938	67.1882	0.1696	8.5130	1.3661	9.8792	2.2853	1.2799	3.5652	0.0000	13,848.9654	13,848.9654	0.9583	0.0000	13,869.0904
Total	**328.8332**	**184.0319**	**296.4646**	**0.6786**	**43.7736**	**8.0351**	**51.2456**	**16.8311**	**7.4721**	**23.7851**	**0.0000**	**57,796.9006**	**57,796.9006**	**4.9050**	**0.0000**	**57,899.9044**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	8.0468	69.6699	83.2174	0.1699	18.2360	3.3188	20.9917	9.9757	3.0533	12.5109	0.0000	15,045.4555	15,045.4555	1.9442	0.0000	15,086.2830
2018	6.9118	42.0433	74.8904	0.1695	8.5119	1.7880	10.3000	2.2850	1.6753	3.9602	0.0000	14,630.5581	14,630.5581	1.0177	0.0000	14,651.9288
2019	6.3383	38.2250	71.1686	0.1696	8.5127	1.5622	10.0748	2.2852	1.4636	3.7488	0.0000	14,271.9216	14,271.9216	0.9848	0.0000	14,292.6021
2020	307.5363	34.0938	67.1882	0.1696	8.5130	1.3661	9.8792	2.2853	1.2799	3.5652	0.0000	13,848.9654	13,848.9654	0.9583	0.0000	13,869.0904
Total	**328.8332**	**184.0319**	**296.4646**	**0.6786**	**43.7736**	**8.0351**	**51.2456**	**16.8311**	**7.4721**	**23.7851**	**0.0000**	**57,796.9006**	**57,796.9006**	**4.9050**	**0.0000**	**57,899.9044**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	37.4298	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269	0.0000	74.7792	74.7792	0.0766	0.0000	76.3873
Energy	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.6139	9,371.6139	0.1796	0.1718	9,428.6480
Mobile	19.6696	40.1731	187.9822	0.4354	29.8788	0.6638	30.5426	8.0737	0.6104	8.6841		37,744.5382	37,744.5382	1.5470		37,777.0256
Total	**57.9584**	**48.4180**	**236.2150**	**0.4845**	**29.8788**	**1.4842**	**31.3630**	**8.0737**	**1.4308**	**9.5046**	**0.0000**	**47,190.9313**	**47,190.9313**	**1.8032**	**0.1718**	**47,282.0609**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	37.4298	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269	0.0000	74.7792	74.7792	0.0766	0.0000	76.3873
Energy	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.6139	9,371.6139	0.1796	0.1718	9,428.6480
Mobile	19.6696	40.1731	187.9822	0.4354	29.8788	0.6638	30.5426	8.0737	0.6104	8.6841		37,744.5382	37,744.5382	1.5470		37,777.0256
Total	**57.9584**	**48.4180**	**236.2150**	**0.4845**	**29.8788**	**1.4842**	**31.3630**	**8.0737**	**1.4308**	**9.5046**	**0.0000**	**47,190.9313**	**47,190.9313**	**1.8032**	**0.1718**	**47,282.0609**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	3/10/2017	5	50	
2	Site Preparation	Site Preparation	3/11/2017	4/21/2017	5	30	
3	Grading	Grading	4/22/2017	8/4/2017	5	75	
4	Building Construction	Building Construction	8/5/2017	6/5/2020	5	740	
5	Paving	Paving	6/6/2020	8/21/2020	5	55	
6	Architectural Coating	Architectural Coating	8/22/2020	11/6/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 1,016,550; Residential Outdoor: 338,850; Non-Residential Indoor: 1,411,206; Non-Residential Outdoor: 470,402 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	757.00	208.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	151.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797		4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**		**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0585	0.7068	1.8900e-003	0.1415	1.2100e-003	0.1427	0.0375	1.1100e-003	0.0386		152.5274	152.5274	7.3200e-003		152.6812
Total	**0.0507**	**0.0585**	**0.7068**	**1.8900e-003**	**0.1415**	**1.2100e-003**	**0.1427**	**0.0375**	**1.1100e-003**	**0.0386**		**152.5274**	**152.5274**	**7.3200e-003**		**152.6812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.0482	42.6971	33.8934	0.0399		2.1252	2.1252		1.9797	1.9797	0.0000	4,036.4674	4,036.4674	1.1073		4,059.7211
Total	**4.0482**	**42.6971**	**33.8934**	**0.0399**		**2.1252**	**2.1252**		**1.9797**	**1.9797**	**0.0000**	**4,036.4674**	**4,036.4674**	**1.1073**		**4,059.7211**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0507	0.0585	0.7068	1.8900e-003	0.1415	1.2100e-003	0.1427	0.0375	1.1100e-003	0.0386		152.5274	152.5274	7.3200e-003		152.6812
Total	**0.0507**	**0.0585**	**0.7068**	**1.8900e-003**	**0.1415**	**1.2100e-003**	**0.1427**	**0.0375**	**1.1100e-003**	**0.0386**		**152.5274**	**152.5274**	**7.3200e-003**		**152.6812**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**		**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0702	0.8482	2.2600e-003	0.1698	1.4500e-003	0.1712	0.0450	1.3400e-003	0.0464		183.0329	183.0329	8.7900e-003		183.2174
Total	**0.0608**	**0.0702**	**0.8482**	**2.2600e-003**	**0.1698**	**1.4500e-003**	**0.1712**	**0.0450**	**1.3400e-003**	**0.0464**		**183.0329**	**183.0329**	**8.7900e-003**		**183.2174**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	**4.8382**	**51.7535**	**39.3970**	**0.0391**	**18.0663**	**2.7542**	**20.8205**	**9.9307**	**2.5339**	**12.4646**	**0.0000**	**4,003.0859**	**4,003.0859**	**1.2265**		**4,028.8432**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0608	0.0702	0.8482	2.2600e-003	0.1698	1.4500e-003	0.1712	0.0450	1.3400e-003	0.0464		183.0329	183.0329	8.7900e-003		183.2174
Total	**0.0608**	**0.0702**	**0.8482**	**2.2600e-003**	**0.1698**	**1.4500e-003**	**0.1712**	**0.0450**	**1.3400e-003**	**0.0464**		**183.0329**	**183.0329**	**8.7900e-003**		**183.2174**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518		6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**		**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	6.0991	69.5920	46.8050	0.0617		3.3172	3.3172		3.0518	3.0518	0.0000	6,313.3690	6,313.3690	1.9344		6,353.9915
Total	**6.0991**	**69.5920**	**46.8050**	**0.0617**	**8.6733**	**3.3172**	**11.9905**	**3.5965**	**3.0518**	**6.6483**	**0.0000**	**6,313.3690**	**6,313.3690**	**1.9344**		**6,353.9915**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0675	0.0780	0.9424	2.5200e-003	0.1886	1.6100e-003	0.1902	0.0500	1.4900e-003	0.0515		203.3699	203.3699	9.7600e-003		203.5749
Total	**0.0675**	**0.0780**	**0.9424**	**2.5200e-003**	**0.1886**	**1.6100e-003**	**0.1902**	**0.0500**	**1.4900e-003**	**0.0515**		**203.3699**	**203.3699**	**9.7600e-003**		**203.5749**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3882	17.7699	29.4182	0.0479	1.3740	0.2554	1.6293	0.3918	0.2347	0.6265		4,708.1004	4,708.1004	0.0355		4,708.8459
Worker	2.5562	2.9502	35.6701	0.0952	7.1387	0.0609	7.1996	1.8934	0.0562	1.9496		7,697.5498	7,697.5498	0.3695		7,705.3098
Total	**4.9444**	**20.7202**	**65.0883**	**0.1431**	**8.5127**	**0.3163**	**8.8290**	**2.2852**	**0.2909**	**2.5761**		**12,405.6502**	**12,405.6502**	**0.4050**		**12,414.1557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.3882	17.7699	29.4182	0.0479	1.3740	0.2554	1.6293	0.3918	0.2347	0.6265		4,708.1004	4,708.1004	0.0355		4,708.8459
Worker	2.5562	2.9502	35.6701	0.0952	7.1387	0.0609	7.1996	1.8934	0.0562	1.9496		7,697.5498	7,697.5498	0.3695		7,705.3098
Total	**4.9444**	**20.7202**	**65.0883**	**0.1431**	**8.5127**	**0.3163**	**8.8290**	**2.2852**	**0.2909**	**2.5761**		**12,405.6502**	**12,405.6502**	**0.4050**		**12,414.1557**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**		**2,609.9390**	**2,609.9390**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9037	16.0929	24.7424	0.0475	1.3732	0.2340	1.6072	0.3916	0.2152	0.6068		4,607.7219	4,607.7219	0.0347		4,608.4498
Worker	2.3395	2.6895	32.6154	0.0952	7.1387	0.0598	7.1985	1.8934	0.0553	1.9487		7,412.8973	7,412.8973	0.3443		7,420.1273
Total	**4.2432**	**18.7824**	**57.3577**	**0.1427**	**8.5119**	**0.2938**	**8.8057**	**2.2850**	**0.2705**	**2.5554**		**12,020.6192**	**12,020.6192**	**0.3790**		**12,028.5771**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	**2.6687**	**23.2608**	**17.5327**	**0.0268**		**1.4943**	**1.4943**		**1.4048**	**1.4048**	**0.0000**	**2,609.9389**	**2,609.9389**	**0.6387**		**2,623.3517**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.9037	16.0929	24.7424	0.0475	1.3732	0.2340	1.6072	0.3916	0.2152	0.6068		4,607.7219	4,607.7219	0.0347		4,608.4498
Worker	2.3395	2.6895	32.6154	0.0952	7.1387	0.0598	7.1985	1.8934	0.0553	1.9487		7,412.8973	7,412.8973	0.3443		7,420.1273
Total	**4.2432**	**18.7824**	**57.3577**	**0.1427**	**8.5119**	**0.2938**	**8.8057**	**2.2850**	**0.2705**	**2.5554**		**12,020.6192**	**12,020.6192**	**0.3790**		**12,028.5771**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083		2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**		**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.8291	14.7934	24.0457	0.0476	1.3739	0.2181	1.5920	0.3918	0.2005	0.5924		4,545.5708	4,545.5708	0.0340		4,546.2844
Worker	2.1576	2.4666	30.0026	0.0952	7.1387	0.0591	7.1978	1.8934	0.0548	1.9481		7,145.5890	7,145.5890	0.3229		7,152.3698
Total	**3.9867**	**17.2600**	**54.0482**	**0.1428**	**8.5127**	**0.2771**	**8.7898**	**2.2852**	**0.2553**	**2.5405**		**11,691.1598**	**11,691.1598**	**0.3569**		**11,698.6542**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3516	20.9650	17.1204	0.0268		1.2850	1.2850		1.2083	1.2083	0.0000	2,580.7618	2,580.7618	0.6279		2,593.9479
Total	**2.3516**	**20.9650**	**17.1204**	**0.0268**		**1.2850**	**1.2850**		**1.2083**	**1.2083**	**0.0000**	**2,580.7618**	**2,580.7618**	**0.6279**		**2,593.9479**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.8291	14.7934	24.0457	0.0476	1.3739	0.2181	1.5920	0.3918	0.2005	0.5924		4,545.5708	4,545.5708	0.0340		4,546.2844
Worker	2.1576	2.4666	30.0026	0.0952	7.1387	0.0591	7.1978	1.8934	0.0548	1.9481		7,145.5890	7,145.5890	0.3229		7,152.3698
Total	**3.9867**	**17.2600**	**54.0482**	**0.1428**	**8.5127**	**0.2771**	**8.7898**	**2.2852**	**0.2553**	**2.5405**		**11,691.1598**	**11,691.1598**	**0.3569**		**11,698.6542**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465		2,542.4799	2,542.4799	0.6194		2,555.4880
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**		**2,542.4799**	**2,542.4799**	**0.6194**		**2,555.4880**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6587	12.7229	22.4355	0.0476	1.3743	0.1944	1.5687	0.3919	0.1788	0.5707		4,448.861 2	4,448.861 2	0.0330		4,449.553 5
Worker	2.0238	2.2869	27.9443	0.0952	7.1387	0.0589	7.1977	1.8934	0.0546	1.9480		6,857.624 3	6,857.624 3	0.3059		6,864.048 9
Total	**3.6825**	**15.0098**	**50.3798**	**0.1428**	**8.5130**	**0.2533**	**8.7663**	**2.2853**	**0.2335**	**2.5188**		**11,306.48 55**	**11,306.48 55**	**0.3389**		**11,313.60 24**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1113	19.0839	16.8084	0.0268		1.1128	1.1128		1.0465	1.0465	0.0000	2,542.479 9	2,542.479 9	0.6194		2,555.488 0
Total	**2.1113**	**19.0839**	**16.8084**	**0.0268**		**1.1128**	**1.1128**		**1.0465**	**1.0465**	**0.0000**	**2,542.479 9**	**2,542.479 9**	**0.6194**		**2,555.488 0**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6587	12.7229	22.4355	0.0476	1.3743	0.1944	1.5687	0.3919	0.1788	0.5707		4,448.861 2	4,448.861 2	0.0330		4,449.553 5
Worker	2.0238	2.2869	27.9443	0.0952	7.1387	0.0589	7.1977	1.8934	0.0546	1.9480		6,857.624 3	6,857.624 3	0.3059		6,864.048 9
Total	**3.6825**	**15.0098**	**50.3798**	**0.1428**	**8.5130**	**0.2533**	**8.7663**	**2.2853**	**0.2335**	**2.5188**		**11,306.48 55**	**11,306.48 55**	**0.3389**		**11,313.60 24**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799		2,160.757 1	2,160.757 1	0.6988		2,175.432 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**		**2,160.757 1**	**2,160.757 1**	**0.6988**		**2,175.432 6**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0453	0.5537	1.8900e-003	0.1415	1.1700e-003	0.1426	0.0375	1.0800e-003	0.0386		135.8842	135.8842	6.0600e-003		136.0115
Total	**0.0401**	**0.0453**	**0.5537**	**1.8900e-003**	**0.1415**	**1.1700e-003**	**0.1426**	**0.0375**	**1.0800e-003**	**0.0386**		**135.8842**	**135.8842**	**6.0600e-003**		**136.0115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3301	13.7845	14.3523	0.0223		0.7390	0.7390		0.6799	0.6799	0.0000	2,160.7571	2,160.7571	0.6988		2,175.4326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3301**	**13.7845**	**14.3523**	**0.0223**		**0.7390**	**0.7390**		**0.6799**	**0.6799**	**0.0000**	**2,160.7571**	**2,160.7571**	**0.6988**		**2,175.4326**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0401	0.0453	0.5537	1.8900e-003	0.1415	1.1700e-003	0.1426	0.0375	1.0800e-003	0.0386		135.8842	135.8842	6.0600e-003		136.0115
Total	**0.0401**	**0.0453**	**0.5537**	**1.8900e-003**	**0.1415**	**1.1700e-003**	**0.1426**	**0.0375**	**1.0800e-003**	**0.0386**		**135.8842**	**135.8842**	**6.0600e-003**		**136.0115**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	306.8904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9057
Total	**307.1326**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4037	0.4562	5.5741	0.0190	1.4240	0.0118	1.4357	0.3777	0.0109	0.3886		1,367.901 3	1,367.901 3	0.0610		1,369.182 8
Total	**0.4037**	**0.4562**	**5.5741**	**0.0190**	**1.4240**	**0.0118**	**1.4357**	**0.3777**	**0.0109**	**0.3886**		**1,367.901 3**	**1,367.901 3**	**0.0610**		**1,369.182 8**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	306.8904					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9057
Total	**307.1326**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9057**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4037	0.4562	5.5741	0.0190	1.4240	0.0118	1.4357	0.3777	0.0109	0.3886		1,367.9013	1,367.9013	0.0610		1,369.1828
Total	**0.4037**	**0.4562**	**5.5741**	**0.0190**	**1.4240**	**0.0118**	**1.4357**	**0.3777**	**0.0109**	**0.3886**		**1,367.9013**	**1,367.9013**	**0.0610**		**1,369.1828**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	19.6696	40.1731	187.9822	0.4354	29.8788	0.6638	30.5426	8.0737	0.6104	8.6841		37,744.5382	37,744.5382	1.5470		37,777.0256
Unmitigated	19.6696	40.1731	187.9822	0.4354	29.8788	0.6638	30.5426	8.0737	0.6104	8.6841		37,744.5382	37,744.5382	1.5470		37,777.0256

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Junior College (2Yr)	5,456.64	1,091.33	0.00	10,294,023	10,294,023
Total	5,456.64	1,091.33	0.00	10,294,023	10,294,023

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.628026	0.058431	0.149152	0.079214	0.026557	0.003351	0.026114	0.003803	0.003113	0.011024	0.010157	0.000551	0.000507

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.613 9	9,371.613 9	0.1796	0.1718	9,428.648 0
NaturalGas Unmitigated	0.8591	7.7526	6.1415	0.0469		0.5935	0.5935		0.5935	0.5935		9,371.613 9	9,371.613 9	0.1796	0.1718	9,428.648 0

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Junior College (2Yr)	69954.6	0.7544	6.8583	5.7610	0.0412		0.5212	0.5212		0.5212	0.5212		8,229.950 2	8,229.950 2	0.1577	0.1509	8,280.036 3
Apartments Mid Rise	9704.14	0.1047	0.8943	0.3806	5.7100e-003		0.0723	0.0723		0.0723	0.0723		1,141.663 7	1,141.663 7	0.0219	0.0209	1,148.611 7
Total		**0.8591**	**7.7526**	**6.1415**	**0.0469**		**0.5935**	**0.5935**		**0.5935**	**0.5935**		**9,371.613 9**	**9,371.613 9**	**0.1796**	**0.1718**	**9,428.648 0**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.70414	0.1047	0.8943	0.3806	5.7100e-003		0.0723	0.0723		0.0723	0.0723		1,141.6637	1,141.6637	0.0219	0.0209	1,148.6117
Junior College (2Yr)	69.9546	0.7544	6.8583	5.7610	0.0412		0.5212	0.5212		0.5212	0.5212		8,229.9502	8,229.9502	0.1577	0.1509	8,280.0363
Total		**0.8591**	**7.7526**	**6.1415**	**0.0469**		**0.5935**	**0.5935**		**0.5935**	**0.5935**		**9,371.6139**	**9,371.6139**	**0.1796**	**0.1718**	**9,428.6480**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	37.4298	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269	0.0000	74.7792	74.7792	0.0766	0.0000	76.3873
Unmitigated	37.4298	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269	0.0000	74.7792	74.7792	0.0766	0.0000	76.3873

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.2217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	30.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3321	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269		74.7792	74.7792	0.0766		76.3873
Total	**37.4298**	**0.4923**	**42.0913**	**2.1900e-003**		**0.2269**	**0.2269**		**0.2269**	**0.2269**	**0.0000**	**74.7792**	**74.7792**	**0.0766**	**0.0000**	**76.3873**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	5.2217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	30.8760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3321	0.4923	42.0913	2.1900e-003		0.2269	0.2269		0.2269	0.2269		74.7792	74.7792	0.0766		76.3873
Total	**37.4298**	**0.4923**	**42.0913**	**2.1900e-003**		**0.2269**	**0.2269**		**0.2269**	**0.2269**	**0.0000**	**74.7792**	**74.7792**	**0.0766**	**0.0000**	**76.3873**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

9. CalEEMod Cumulative Year 2016 Outputs– Annual (tons per year)

AAU Cumulative Year 2016

San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	940.80	1000sqft	21.60	940,804.00	0
Apartments Mid Rise	502.00	Dwelling Unit	13.21	502,000.00	1053

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	4.6	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total dwelling units and square footage according to information provided in in Table A-1 of the ESTM

Construction Phase - Only operational emissions are used. Contruction emissions from this CalEEMod run were not used in the construction AQ analysis.

Architectural Coating -

Vehicle Trips - Vehicle trips are based on project specific traffic study. Shuttle trip emissions estimated separately.
1/29/16 adjustment to trip rates due to updated information.

Woodstoves - Assumed no fireplaces or woodstoves.

Energy Use - Adjust for 2013 Title 24 Energy Intensity

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	250
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	250
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	250
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	250
tblEnergyUse	T24E	312.05	234.04
tblEnergyUse	T24E	5.06	3.80
tblEnergyUse	T24NG	7,191.67	5,393.80
tblEnergyUse	T24NG	35.21	26.40
tblFireplaces	NumberGas	276.10	0.00
tblFireplaces	NumberWood	70.28	0.00
tblLandUse	LandUseSquareFeet	940,800.00	940,804.00
tblLandUse	Population	1,436.00	1,053.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	ST_TR	11.23	1.16
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	6.59	0.00
tblVehicleTrips	WD_TR	27.49	5.80
tblWoodstoves	NumberCatalytic	2.51	0.00
tblWoodstoves	NumberNoncatalytic	2.51	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8422	6.9947	7.8864	0.0127	1.0392	0.3291	1.3684	0.4031	0.3052	0.7083	0.0000	1,067.6895	1,067.6895	0.1585	0.0000	1,071.0177
2018	0.9192	5.6242	10.4439	0.0214	1.0696	0.2335	1.3030	0.2881	0.2188	0.5068	0.0000	1,679.7970	1,679.7970	0.1205	0.0000	1,682.3281
2019	0.8428	5.1144	9.9452	0.0214	1.0697	0.2040	1.2737	0.2881	0.1911	0.4792	0.0000	1,639.1452	1,639.1452	0.1166	0.0000	1,641.5946
2020	8.8268	2.4160	4.6851	0.0105	0.5045	0.1010	0.6055	0.1358	0.0944	0.2302	0.0000	785.1210	785.1210	0.0688	0.0000	786.5657
Total	**11.4309**	**20.1493**	**32.9607**	**0.0660**	**3.6830**	**0.8676**	**4.5505**	**1.1150**	**0.8095**	**1.9245**	**0.0000**	**5,171.7528**	**5,171.7528**	**0.4644**	**0.0000**	**5,181.5060**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8422	6.9947	7.8864	0.0127	1.0392	0.3291	1.3684	0.4031	0.3052	0.7083	0.0000	1,067.6890	1,067.6890	0.1585	0.0000	1,071.0171
2018	0.9192	5.6242	10.4439	0.0214	1.0696	0.2335	1.3030	0.2881	0.2188	0.5068	0.0000	1,679.7966	1,679.7966	0.1205	0.0000	1,682.3277
2019	0.8428	5.1144	9.9452	0.0214	1.0697	0.2040	1.2737	0.2881	0.1911	0.4792	0.0000	1,639.1448	1,639.1448	0.1166	0.0000	1,641.5942
2020	8.8268	2.4160	4.6851	0.0105	0.5045	0.1010	0.6055	0.1358	0.0944	0.2302	0.0000	785.1208	785.1208	0.0688	0.0000	786.5655
Total	**11.4309**	**20.1493**	**32.9607**	**0.0660**	**3.6830**	**0.8676**	**4.5505**	**1.1150**	**0.8095**	**1.9245**	**0.0000**	**5,171.7512**	**5,171.7512**	**0.4644**	**0.0000**	**5,181.5045**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7077	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368
Energy	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	4,889.9111	4,889.9111	0.1807	0.0597	4,912.2053
Mobile	2.6326	5.8427	26.0507	0.0560	3.8905	0.0898	3.9803	1.0550	0.0826	1.1376	0.0000	4,412.8966	4,412.8966	0.1896	0.0000	4,416.8771
Waste						0.0000	0.0000		0.0000	0.0000	295.1407	0.0000	295.1407	17.4423	0.0000	661.4294
Water						0.0000	0.0000		0.0000	0.0000	25.0163	218.6075	243.6238	2.5793	0.0627	317.2306
Total	**9.4971**	**7.3018**	**30.9597**	**0.0648**	**3.8905**	**0.2186**	**4.1090**	**1.0550**	**0.2114**	**1.2663**	**320.1571**	**9,527.5207**	**9,847.6777**	**20.3981**	**0.1224**	**10,313.9792**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7077	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368
Energy	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	4,889.9111	4,889.9111	0.1807	0.0597	4,912.2053
Mobile	2.6326	5.8427	26.0507	0.0560	3.8905	0.0898	3.9803	1.0550	0.0826	1.1376	0.0000	4,412.8966	4,412.8966	0.1896	0.0000	4,416.8771
Waste						0.0000	0.0000		0.0000	0.0000	295.1407	0.0000	295.1407	17.4423	0.0000	661.4294
Water						0.0000	0.0000		0.0000	0.0000	25.0163	218.6075	243.6238	2.5788	0.0626	317.1907
Total	**9.4971**	**7.3018**	**30.9597**	**0.0648**	**3.8905**	**0.2186**	**4.1090**	**1.0550**	**0.2114**	**1.2663**	**320.1571**	**9,527.5207**	**9,847.6777**	**20.3976**	**0.1223**	**10,313.9393**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	3/10/2017	5	50	
2	Site Preparation	Site Preparation	3/11/2017	4/21/2017	5	30	
3	Grading	Grading	4/22/2017	8/4/2017	5	75	
4	Building Construction	Building Construction	8/5/2017	6/5/2020	5	740	
5	Paving	Paving	6/6/2020	8/21/2020	5	55	
6	Architectural Coating	Architectural Coating	8/22/2020	11/6/2020	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 1,016,550; Residential Outdoor: 338,850; Non-Residential Indoor: 1,411,206; Non-Residential Outdoor: 470,402 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	757.00	208.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	151.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	1.0674	0.8473	1.0000e-003		0.0531	0.0531		0.0495	0.0495	0.0000	91.5455	91.5455	0.0251	0.0000	92.0729
Total	**0.1012**	**1.0674**	**0.8473**	**1.0000e-003**		**0.0531**	**0.0531**		**0.0495**	**0.0495**	**0.0000**	**91.5455**	**91.5455**	**0.0251**	**0.0000**	**92.0729**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.6800e-003	0.0168	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	3.2606	3.2606	1.7000e-004	0.0000	3.2641
Total	**1.2200e-003**	**1.6800e-003**	**0.0168**	**4.0000e-005**	**3.4000e-003**	**3.0000e-005**	**3.4300e-003**	**9.0000e-004**	**3.0000e-005**	**9.3000e-004**	**0.0000**	**3.2606**	**3.2606**	**1.7000e-004**	**0.0000**	**3.2641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	1.0674	0.8473	1.0000e-003		0.0531	0.0531		0.0495	0.0495	0.0000	91.5454	91.5454	0.0251	0.0000	92.0728
Total	**0.1012**	**1.0674**	**0.8473**	**1.0000e-003**		**0.0531**	**0.0531**		**0.0495**	**0.0495**	**0.0000**	**91.5454**	**91.5454**	**0.0251**	**0.0000**	**92.0728**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.6800e-003	0.0168	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	3.2606	3.2606	1.7000e-004	0.0000	3.2641
Total	**1.2200e-003**	**1.6800e-003**	**0.0168**	**4.0000e-005**	**3.4000e-003**	**3.0000e-005**	**3.4300e-003**	**9.0000e-004**	**3.0000e-005**	**9.3000e-004**	**0.0000**	**3.2606**	**3.2606**	**1.7000e-004**	**0.0000**	**3.2641**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7763	0.5910	5.9000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	54.4731	54.4731	0.0167	0.0000	54.8236
Total	**0.0726**	**0.7763**	**0.5910**	**5.9000e-004**	**0.2710**	**0.0413**	**0.3123**	**0.1490**	**0.0380**	**0.1870**	**0.0000**	**54.4731**	**54.4731**	**0.0167**	**0.0000**	**54.8236**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.2100e-003	0.0121	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3476	2.3476	1.2000e-004	0.0000	2.3501
Total	**8.8000e-004**	**1.2100e-003**	**0.0121**	**3.0000e-005**	**2.4500e-003**	**2.0000e-005**	**2.4700e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.3476**	**2.3476**	**1.2000e-004**	**0.0000**	**2.3501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0726	0.7763	0.5910	5.9000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	54.4730	54.4730	0.0167	0.0000	54.8235
Total	**0.0726**	**0.7763**	**0.5910**	**5.9000e-004**	**0.2710**	**0.0413**	**0.3123**	**0.1490**	**0.0380**	**0.1870**	**0.0000**	**54.4730**	**54.4730**	**0.0167**	**0.0000**	**54.8235**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	1.2100e-003	0.0121	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.3476	2.3476	1.2000e-004	0.0000	2.3501
Total	**8.8000e-004**	**1.2100e-003**	**0.0121**	**3.0000e-005**	**2.4500e-003**	**2.0000e-005**	**2.4700e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.3476**	**2.3476**	**1.2000e-004**	**0.0000**	**2.3501**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2287	2.6097	1.7552	2.3100e-003		0.1244	0.1244		0.1144	0.1144	0.0000	214.7772	214.7772	0.0658	0.0000	216.1592
Total	**0.2287**	**2.6097**	**1.7552**	**2.3100e-003**	**0.3253**	**0.1244**	**0.4496**	**0.1349**	**0.1144**	**0.2493**	**0.0000**	**214.7772**	**214.7772**	**0.0658**	**0.0000**	**216.1592**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4400e-003	3.3600e-003	0.0336	9.0000e-005	6.8000e-003	6.0000e-005	6.8600e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.5211	6.5211	3.3000e-004	0.0000	6.5281
Total	**2.4400e-003**	**3.3600e-003**	**0.0336**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8100e-003**	**6.0000e-005**	**1.8700e-003**	**0.0000**	**6.5211**	**6.5211**	**3.3000e-004**	**0.0000**	**6.5281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2287	2.6097	1.7552	2.3100e-003		0.1244	0.1244		0.1144	0.1144	0.0000	214.7770	214.7770	0.0658	0.0000	216.1589
Total	**0.2287**	**2.6097**	**1.7552**	**2.3100e-003**	**0.3253**	**0.1244**	**0.4496**	**0.1349**	**0.1144**	**0.2493**	**0.0000**	**214.7770**	**214.7770**	**0.0658**	**0.0000**	**216.1589**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4400e-003	3.3600e-003	0.0336	9.0000e-005	6.8000e-003	6.0000e-005	6.8600e-003	1.8100e-003	6.0000e-005	1.8700e-003	0.0000	6.5211	6.5211	3.3000e-004	0.0000	6.5281
Total	**2.4400e-003**	**3.3600e-003**	**0.0336**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8100e-003**	**6.0000e-005**	**1.8700e-003**	**0.0000**	**6.5211**	**6.5211**	**3.3000e-004**	**0.0000**	**6.5281**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1629	1.3863	0.9518	1.4100e-003		0.0935	0.0935		0.0878	0.0878	0.0000	125.7265	125.7265	0.0309	0.0000	126.3763
Total	**0.1629**	**1.3863**	**0.9518**	**1.4100e-003**		**0.0935**	**0.0935**		**0.0878**	**0.0878**	**0.0000**	**125.7265**	**125.7265**	**0.0309**	**0.0000**	**126.3763**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1428	0.9710	1.8966	2.5100e-003	0.0698	0.0135	0.0833	0.0200	0.0124	0.0324	0.0000	223.4832	223.4832	1.7100e-003	0.0000	223.5191
Worker	0.1295	0.1778	1.7820	4.7100e-003	0.3605	3.2000e-003	0.3637	0.0959	2.9500e-003	0.0989	0.0000	345.5547	345.5547	0.0176	0.0000	345.9243
Total	**0.2723**	**1.1488**	**3.6786**	**7.2200e-003**	**0.4303**	**0.0167**	**0.4470**	**0.1159**	**0.0153**	**0.1312**	**0.0000**	**569.0379**	**569.0379**	**0.0193**	**0.0000**	**569.4434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1629	1.3863	0.9518	1.4100e-003		0.0935	0.0935		0.0878	0.0878	0.0000	125.7264	125.7264	0.0309	0.0000	126.3762
Total	**0.1629**	**1.3863**	**0.9518**	**1.4100e-003**		**0.0935**	**0.0935**		**0.0878**	**0.0878**	**0.0000**	**125.7264**	**125.7264**	**0.0309**	**0.0000**	**126.3762**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1428	0.9710	1.8966	2.5100e-003	0.0698	0.0135	0.0833	0.0200	0.0124	0.0324	0.0000	223.4832	223.4832	1.7100e-003	0.0000	223.5191
Worker	0.1295	0.1778	1.7820	4.7100e-003	0.3605	3.2000e-003	0.3637	0.0959	2.9500e-003	0.0989	0.0000	345.5547	345.5547	0.0176	0.0000	345.9243
Total	**0.2723**	**1.1488**	**3.6786**	**7.2200e-003**	**0.4303**	**0.0167**	**0.4470**	**0.1159**	**0.0153**	**0.1312**	**0.0000**	**569.0379**	**569.0379**	**0.0193**	**0.0000**	**569.4434**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9844	308.9844	0.0756	0.0000	310.5723
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9844**	**308.9844**	**0.0756**	**0.0000**	**310.5723**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2774	2.1857	4.1216	6.1900e-003	0.1735	0.0307	0.2041	0.0497	0.0282	0.0779	0.0000	543.6593	543.6593	4.1500e-003	0.0000	543.7465
Worker	0.2935	0.4029	4.0343	0.0117	0.8961	7.8000e-003	0.9039	0.2384	7.2200e-003	0.2456	0.0000	827.1533	827.1533	0.0408	0.0000	828.0092
Total	**0.5709**	**2.5886**	**8.1559**	**0.0179**	**1.0696**	**0.0385**	**1.1080**	**0.2881**	**0.0354**	**0.3235**	**0.0000**	**1,370.8126**	**1,370.8126**	**0.0449**	**0.0000**	**1,371.7558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3483	3.0355	2.2880	3.5000e-003		0.1950	0.1950		0.1833	0.1833	0.0000	308.9841	308.9841	0.0756	0.0000	310.5720
Total	**0.3483**	**3.0355**	**2.2880**	**3.5000e-003**		**0.1950**	**0.1950**		**0.1833**	**0.1833**	**0.0000**	**308.9841**	**308.9841**	**0.0756**	**0.0000**	**310.5720**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2774	2.1857	4.1216	6.1900e-003	0.1735	0.0307	0.2041	0.0497	0.0282	0.0779	0.0000	543.6593	543.6593	4.1500e-003	0.0000	543.7465
Worker	0.2935	0.4029	4.0343	0.0117	0.8961	7.8000e-003	0.9039	0.2384	7.2200e-003	0.2456	0.0000	827.1533	827.1533	0.0408	0.0000	828.0092
Total	**0.5709**	**2.5886**	**8.1559**	**0.0179**	**1.0696**	**0.0385**	**1.1080**	**0.2881**	**0.0354**	**0.3235**	**0.0000**	**1,370.8126**	**1,370.8126**	**0.0449**	**0.0000**	**1,371.7558**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5302**	**305.5302**	**0.0743**	**0.0000**	**307.0913**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2661	2.0090	4.0139	6.2100e-003	0.1736	0.0286	0.2021	0.0497	0.0263	0.0760	0.0000	536.3290	536.3290	4.0700e-003	0.0000	536.4146
Worker	0.2698	0.3695	3.6971	0.0117	0.8961	7.7100e-003	0.9038	0.2384	7.1500e-003	0.2455	0.0000	797.2860	797.2860	0.0382	0.0000	798.0887
Total	**0.5359**	**2.3785**	**7.7110**	**0.0179**	**1.0697**	**0.0363**	**1.1060**	**0.2881**	**0.0334**	**0.3215**	**0.0000**	**1,333.6150**	**1,333.6150**	**0.0423**	**0.0000**	**1,334.5033**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	**0.3069**	**2.7359**	**2.2342**	**3.5000e-003**		**0.1677**	**0.1677**		**0.1577**	**0.1577**	**0.0000**	**305.5299**	**305.5299**	**0.0743**	**0.0000**	**307.0909**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2661	2.0090	4.0139	6.2100e-003	0.1736	0.0286	0.2021	0.0497	0.0263	0.0760	0.0000	536.3290	536.3290	4.0700e-003	0.0000	536.4146
Worker	0.2698	0.3695	3.6971	0.0117	0.8961	7.7100e-003	0.9038	0.2384	7.1500e-003	0.2455	0.0000	797.2860	797.2860	0.0382	0.0000	798.0887
Total	**0.5359**	**2.3785**	**7.7110**	**0.0179**	**1.0697**	**0.0363**	**1.1060**	**0.2881**	**0.0334**	**0.3215**	**0.0000**	**1,333.6150**	**1,333.6150**	**0.0423**	**0.0000**	**1,334.5033**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1193	1.0782	0.9497	1.5100e-003		0.0629	0.0629		0.0591	0.0591	0.0000	130.3172	130.3172	0.0318	0.0000	130.9839
Total	**0.1193**	**1.0782**	**0.9497**	**1.5100e-003**		**0.0629**	**0.0629**		**0.0591**	**0.0591**	**0.0000**	**130.3172**	**130.3172**	**0.0318**	**0.0000**	**130.9839**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1037	0.7482	1.6443	2.6900e-003	0.0752	0.0110	0.0862	0.0215	0.0101	0.0317	0.0000	227.2623	227.2623	1.7100e-003	0.0000	227.2983
Worker	0.1094	0.1483	1.4873	5.0700e-003	0.3880	3.3300e-003	0.3913	0.1032	3.0900e-003	0.1063	0.0000	331.2584	331.2584	0.0157	0.0000	331.5877
Total	**0.2131**	**0.8965**	**3.1316**	**7.7600e-003**	**0.4631**	**0.0144**	**0.4775**	**0.1247**	**0.0132**	**0.1380**	**0.0000**	**558.5207**	**558.5207**	**0.0174**	**0.0000**	**558.8860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1193	1.0782	0.9497	1.5100e-003		0.0629	0.0629		0.0591	0.0591	0.0000	130.3170	130.3170	0.0318	0.0000	130.9838
Total	**0.1193**	**1.0782**	**0.9497**	**1.5100e-003**		**0.0629**	**0.0629**		**0.0591**	**0.0591**	**0.0000**	**130.3170**	**130.3170**	**0.0318**	**0.0000**	**130.9838**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1037	0.7482	1.6443	2.6900e-003	0.0752	0.0110	0.0862	0.0215	0.0101	0.0317	0.0000	227.2623	227.2623	1.7100e-003	0.0000	227.2983
Worker	0.1094	0.1483	1.4873	5.0700e-003	0.3880	3.3300e-003	0.3913	0.1032	3.0900e-003	0.1063	0.0000	331.2584	331.2584	0.0157	0.0000	331.5877
Total	**0.2131**	**0.8965**	**3.1316**	**7.7600e-003**	**0.4631**	**0.0144**	**0.4775**	**0.1247**	**0.0132**	**0.1380**	**0.0000**	**558.5207**	**558.5207**	**0.0174**	**0.0000**	**558.8860**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0366	0.3791	0.3947	6.1000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	53.9057	53.9057	0.0174	0.0000	54.2718
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0366**	**0.3791**	**0.3947**	**6.1000e-004**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**53.9057**	**53.9057**	**0.0174**	**0.0000**	**54.2718**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	1.4300e-003	0.0143	5.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.1948	3.1948	1.5000e-004	0.0000	3.1980
Total	**1.0600e-003**	**1.4300e-003**	**0.0143**	**5.0000e-005**	**3.7400e-003**	**3.0000e-005**	**3.7700e-003**	**1.0000e-003**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**3.1948**	**3.1948**	**1.5000e-004**	**0.0000**	**3.1980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0366	0.3791	0.3947	6.1000e-004		0.0203	0.0203		0.0187	0.0187	0.0000	53.9056	53.9056	0.0174	0.0000	54.2717
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0366**	**0.3791**	**0.3947**	**6.1000e-004**		**0.0203**	**0.0203**		**0.0187**	**0.0187**	**0.0000**	**53.9056**	**53.9056**	**0.0174**	**0.0000**	**54.2717**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0600e-003	1.4300e-003	0.0143	5.0000e-005	3.7400e-003	3.0000e-005	3.7700e-003	1.0000e-003	3.0000e-005	1.0300e-003	0.0000	3.1948	3.1948	1.5000e-004	0.0000	3.1980
Total	**1.0600e-003**	**1.4300e-003**	**0.0143**	**5.0000e-005**	**3.7400e-003**	**3.0000e-005**	**3.7700e-003**	**1.0000e-003**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**3.1948**	**3.1948**	**1.5000e-004**	**0.0000**	**3.1980**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.4395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0215	7.0215	5.4000e-004	0.0000	7.0329
Total	**8.4462**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0215**	**7.0215**	**5.4000e-004**	**0.0000**	**7.0329**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0144	0.1444	4.9000e-004	0.0377	3.2000e-004	0.0380	0.0100	3.0000e-004	0.0103	0.0000	32.1612	32.1612	1.5200e-003	0.0000	32.1932
Total	**0.0106**	**0.0144**	**0.1444**	**4.9000e-004**	**0.0377**	**3.2000e-004**	**0.0380**	**0.0100**	**3.0000e-004**	**0.0103**	**0.0000**	**32.1612**	**32.1612**	**1.5200e-003**	**0.0000**	**32.1932**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	8.4395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6600e-003	0.0463	0.0504	8.0000e-005		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	7.0214	7.0214	5.4000e-004	0.0000	7.0329
Total	**8.4462**	**0.0463**	**0.0504**	**8.0000e-005**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**7.0214**	**7.0214**	**5.4000e-004**	**0.0000**	**7.0329**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	0.0144	0.1444	4.9000e-004	0.0377	3.2000e-004	0.0380	0.0100	3.0000e-004	0.0103	0.0000	32.1612	32.1612	1.5200e-003	0.0000	32.1932
Total	**0.0106**	**0.0144**	**0.1444**	**4.9000e-004**	**0.0377**	**3.2000e-004**	**0.0380**	**0.0100**	**3.0000e-004**	**0.0103**	**0.0000**	**32.1612**	**32.1612**	**1.5200e-003**	**0.0000**	**32.1932**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6326	5.8427	26.0507	0.0560	3.8905	0.0898	3.9803	1.0550	0.0826	1.1376	0.0000	4,412.8966	4,412.8966	0.1896	0.0000	4,416.8771
Unmitigated	2.6326	5.8427	26.0507	0.0560	3.8905	0.0898	3.9803	1.0550	0.0826	1.1376	0.0000	4,412.8966	4,412.8966	0.1896	0.0000	4,416.8771

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Junior College (2Yr)	5,456.64	1,091.33	0.00	10,294,023	10,294,023
Total	5,456.64	1,091.33	0.00	10,294,023	10,294,023

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.628026	0.058431	0.149152	0.079214	0.026557	0.003351	0.026114	0.003803	0.003113	0.011024	0.010157	0.000551	0.000507

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,338.3353	3,338.3353	0.1510	0.0312	3,351.1869
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,338.3353	3,338.3353	0.1510	0.0312	3,351.1869
NaturalGas Mitigated	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	1,551.5758	1,551.5758	0.0297	0.0285	1,561.0184
NaturalGas Unmitigated	0.1568	1.4149	1.1208	8.5500e-003		0.1083	0.1083		0.1083	0.1083	0.0000	1,551.5758	1,551.5758	0.0297	0.0285	1,561.0184

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.54201e+006	0.0191	0.1632	0.0695	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.0152	189.0152	3.6200e-003	3.4700e-003	190.1655
Junior College (2Yr)	2.55334e+007	0.1377	1.2516	1.0514	7.5100e-003		0.0951	0.0951		0.0951	0.0951	0.0000	1,362.5606	1,362.5606	0.0261	0.0250	1,370.8529
Total		**0.1568**	**1.4149**	**1.1208**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**	**0.0000**	**1,551.5758**	**1,551.5758**	**0.0297**	**0.0285**	**1,561.0184**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.54201e +006	0.0191	0.1632	0.0695	1.0400e-003		0.0132	0.0132		0.0132	0.0132	0.0000	189.0152	189.0152	3.6200e-003	3.4700e-003	190.1655
Junior College (2Yr)	2.55334e +007	0.1377	1.2516	1.0514	7.5100e-003		0.0951	0.0951		0.0951	0.0951	0.0000	1,362.560 6	1,362.560 6	0.0261	0.0250	1,370.852 9
Total		**0.1568**	**1.4149**	**1.1208**	**8.5500e-003**		**0.1083**	**0.1083**		**0.1083**	**0.1083**	**0.0000**	**1,551.575 8**	**1,551.575 8**	**0.0297**	**0.0285**	**1,561.018 4**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.77574e +006	516.5845	0.0234	4.8300e-003	518.5732
Junior College (2Yr)	9.69969e +006	2,821.750 8	0.1276	0.0264	2,832.613 7
Total		**3,338.335 3**	**0.1510**	**0.0312**	**3,351.186 9**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.77574e +006	516.5845	0.0234	4.8300e-003	518.5732
Junior College (2Yr)	9.69969e +006	2,821.750 8	0.1276	0.0264	2,832.613 7
Total		**3,338.335 3**	**0.1510**	**0.0312**	**3,351.186 9**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.7077	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368
Unmitigated	6.7077	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9530					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1199	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368
Total	**6.7077**	**0.0443**	**3.7882**	**2.0000e-004**		**0.0204**	**0.0204**		**0.0204**	**0.0204**	**0.0000**	**6.1055**	**6.1055**	**6.2500e-003**	**0.0000**	**6.2368**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.9530					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1199	0.0443	3.7882	2.0000e-004		0.0204	0.0204		0.0204	0.0204	0.0000	6.1055	6.1055	6.2500e-003	0.0000	6.2368
Total	**6.7077**	**0.0443**	**3.7882**	**2.0000e-004**		**0.0204**	**0.0204**		**0.0204**	**0.0204**	**0.0000**	**6.1055**	**6.1055**	**6.2500e-003**	**0.0000**	**6.2368**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	243.6238	2.5788	0.0626	317.1907
Unmitigated	243.6238	2.5793	0.0627	317.2306

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	32.7073 / 20.6198	82.8568	1.0691	0.0258	113.3181
Junior College (2Yr)	46.1453 / 72.176	160.7671	1.5103	0.0369	203.9125
Total		**243.6238**	**2.5793**	**0.0627**	**317.2306**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	32.7073 / 20.6198	82.8568	1.0689	0.0258	113.3015
Junior College (2Yr)	46.1453 / 72.176	160.7671	1.5100	0.0368	203.8892
Total		**243.6238**	**2.5788**	**0.0626**	**317.1907**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	295.1407	17.4423	0.0000	661.4294
Unmitigated	295.1407	17.4423	0.0000	661.4294

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	230.92	46.8747	2.7702	0.0000	105.0492
Junior College (2Yr)	1223.04	248.2661	14.6721	0.0000	556.3803
Total		**295.1407**	**17.4423**	**0.0000**	**661.4294**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	230.92	46.8747	2.7702	0.0000	105.0492
Junior College (2Yr)	1223.04	248.2661	14.6721	0.0000	556.3803
Total		**295.1407**	**17.4423**	**0.0000**	**661.4294**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX GHG:

Greenhouse Gas Compliance Checklists

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 2340 Stockton Street, Block 18/Lot 4

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

2340 Stockton Street (ES-1) is a three-story, 44,530-square-foot building. Prior to AAU occupation in 1991, the building was occupied by the Otis Elevator Company offices. AAU uses the space for lecture classrooms, labs/studios, offices, and student and faculty lounges. AAU added exterior blade signs on four corners of the building in 1987, for a total of four signs, and installed a new fire alarm and sprinkler system in 2012. AAU installed clearance bars at the parking entrance in 2015. AAU added a painted logo at the front entrance of the building in 2013 without building permits. AAU installed 12 rooftop condenser units without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the “Remarks” column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco’s Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest “AB-093” to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street's use is a postsecondary educational institution in a C-2 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 2340 Stockton Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4There are three bicycle racks with 18 Class II bicycle parking spaces. ES-2 has no Class 1 bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	Parking for 2340 Stockton Street is provided on a surface parking lot with only 95-spaces.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building and would not add 10 or more parking spaces..
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 2340 Stockton Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review..

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 77 New Montgomery Street is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 2340 Stockton Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
(San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage..	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 2340 Stockton Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 2340 Stockton Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2340 Stockton Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 2295 Taylor Street, Block 66/Lot 1

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

2295 Taylor Street (ES-2) is a two-story, 20,000-square-foot building. The building was formerly used as by the San Francisco Art Institute for artistic teaching and studio space. Beginning in 2003, AAU occupied the building and has used the space for classrooms, labs/studios, offices, and gallery space, with studio spaces on the ground floor and classroom space on the upper floor. AAU vacated the second floor in October 2014 and plans to rehabilitate that space for parking. AAU painted its name and logo along the top of the building; this signage was subsequently covered over by metal plates between 2011 and 2013. On the interior, AAU also made fire sprinkler and life safety improvements in 2010 without building permits. Replica lighting features and metal security gates at the southernmost ground-level doors were installed in 2005 and 2007, respectively, without building permits. AAU installed two rooftop exhaust fan units without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street's use is a postsecondary educational institution in the North Beach NCD and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 2295 Taylor Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4 There are currently 14 Class II bicycle parking spaces. ES-2 has no Class 1 bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 2295 Taylor Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 2295 Taylor Street is unknown. All available information will be verified during building permit review.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.

Regulation	Requirements	Project Compliance	Remarks
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 2295 Taylor Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 601 Brannan Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 2295 Taylor Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2295 Taylor Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1727 Lombard Street, Block 506/Lot 36

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1727 Lombard Street (ES-3) is an existing 16,371-square-foot building that was known as the Star Motel. AAU occupied the building in 2007. AAU uses the building as a student housing (52 rooms/81 beds). The building also has a common room, laundry facilities, and a manager's office with a kitchen. AAU added metal gates and garage door in 2008.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street's use is student housing in NC-3 and RH-2 Districts and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1727 Lombard Street is required to have 20 Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. 1727 Lombard Street has two bicycle racks with 16 Class II bicycle parking spaces. The site has no Class I bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1727 Lombard Street is required to have 20 Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. 1727 Lombard Street has two bicycle racks with 16 Class II bicycle parking spaces. The site has no Class I bicycle parking spaces.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street has not added any new parking stalls and thus is not subject to San Francisco Green Building Code (CalGreen Section 5.106.5.2).
Car Sharing Requirements (San Francisco Planning Code Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	AAU does not allow students to park private vehicles at 1727 Lombard Street and is only used intermittently by select faculty and staff members. No car-share parking spaces are required.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2 and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 1727 Lombard Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 1727 Lombard Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing residential building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1727 Lombard Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject to San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2 and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 1727 Lombard Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.) [3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1727 Lombard Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 2211 Van Ness Avenue, Block 570/Lot 5

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

2211 Van Ness Avenue (ES-4) is an existing two-story, 5,076-square-foot building. Prior to AAU occupation in 2005, the building was residential with a ground floor restaurant. AAU uses the building as a dormitory (8 rooms/20 beds). AAU painted signage over an existing awning and re-roofed the building and, on the interior, AAU also had exploratory demolition work done to fix a wall/deck at the rear room (no structural work was involved). Without building permits, AAU painted signage over an existing awning some time after 2008 and remodeled the ground floor to provide bedrooms, bathrooms, and kitchens, and to add full-height walls, baseboard heaters, and a shower after 2007. AAU also installed security fencing along the brick wall at some point after 2005 without a building permit.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue's use is student housing in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A))	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	2211 Van Ness Avenue is required to have five Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. There are no bicycle parking spaces located at the site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	2211 Van Ness Avenue is required to have five Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. There are no bicycle parking spaces located at the site.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue does not provide off-street parking and thus is not subject to Planning Code Section 166.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 2211 Van Ness Avenue's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 2211 Van Ness Avenue. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 2211 Van Ness Avenue is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

<table>
<tr><th>Regulation</th><th>Requirements</th><th>Project Compliance</th><th>Remarks</th></tr>
<tr><td>Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]</td><td>Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.

Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.

Carpet - All carpet must meet one of the following:
1. Carpet and Rug Institute Green Label Plus Program,
2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),
3. NSF/ANSI 140 at the Gold level,
4. Scientific Certifications Systems Sustainable Choice, OR
5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database
and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content.

Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5.

Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with:
1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,
2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,
3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR
4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.</td><td>☐ Project Complies

☐ Not Applicable

☒ Project Does Not Comply</td><td>The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 2211 Van Ness Avenue is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.</td></tr>
</table>

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[3]	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2211 Van Ness Avenue does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 2209 Van Ness Avenue, Block 570/Lot 29

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

2209 Van Ness Avenue (ES-5) is an existing three-story, 11,897-square-foot building. AAU uses the building as a dormitory (22 rooms/56 beds). The building also has a recreation room, kitchen and dining room, and a backyard patio. Security bars on a first-floor window, a metal fence, and a gate were added after 1998. AAU performed alterations to comply with the Americans with Disabilities Act (ADA) requirements including adding an exterior lift and removing concrete steps on the ground floor, added structural reinforcement stair beams, and installed and subsequently removed a wall sign at ground level. The sign was originally installed without a building permit.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue's use is student housing in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	2209 Van Ness Avenue is required to have 14 Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. There are nine Class II bicycle parking spaces located at the site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class 1 space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	2209 Van Ness Avenue is required to have 14 Class I and three Class II bicycle parking spaces per Planning Code Section 155.2. There are nine Class II bicycle parking spaces located at the site.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue does not provide off-street parking and thus is not subject to Planning Code Section 166.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 2209 Van Ness Avenue's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 2209 Van Ness Avenue. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 2209 Van Ness Avenue is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing residential building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2 and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue is a residential building and Enhanced Refrigerant Management (CalGreen Chapter 5.508.1.2 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 2209 Van Ness Avenue is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review..

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[3]	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2209 Van Ness Avenue does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 2151 Van Ness Avenue, Block 575/ Lot 15

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

2151 Van Ness Avenue (ES-6) is a two-story, 27,912-square-foot-building with an 80-foot tall tower. The building was previously used as a church, then vacant for 13 years before AAU occupancy in 2005. AAU uses the building, on a limited basis, as an auditorium and lecture facilities, with lecture classes held in the main auditorium area and studio classes in the basement area. Four outdoor decorative lamps and a metal fence along Broadway were added at an unknown time. During AAU's tenancy, the building has had asbestos abatement work and seismic retrofit upgrades. The metal security fence and stone steps were reconfigured. The stone step reconfiguration includes skateboard deterrents. Plaster work was done on the ceiling in the nave to repair damage by leaks. Fire sprinklers were installed in the basement. AAU added acoustical tiles to the apse ceiling at an unknown date. The rear wall of the chancel was altered with the addition of drywall. AAU installed an ADA lift and stairs on the Broadway side of the building, resulting in the removal of a portion of the low, granite wall. AAU installed a fire alarm and fire sprinkler system, and removed a small sign on the building's façade. AAU also refurbished the steel doors and arch at the main entrance. Infill of the southwest corner of the basement-level gymnasium to create an interior room occurred around 2011 without building permits.

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the “Remarks” column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco’s Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional.

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue's current use is institutional in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to institutional uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 2151 Van Ness Avenue must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.Eight Class II bicycle parking spaces are currently provided in the basement.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is not subject to CalGreen Section 5.1.06..52 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Sections Code 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 25,000 square feet, but greater than 10,000 square feet and commissioned all energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 2151 Van Ness Avenue in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 2151 Van Ness Avenue is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19) and CalGreen)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 2151 Van Ness Avenue do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 2151 Van Ness Avenue is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

2 While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	2151 Van Ness Avenue does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1849 Van Ness Avenue, Block 618/Lots 1 and 1B

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1849 Van Ness Avenue (ES-8) is a four-story, 107,908-square-foot-building. The building was previously occupied by an auto dealership prior to AAU occupation in 1998. AAU uses the building for classrooms, labs/studios, offices, an antique car museum, an art store and a lounge.. AAU replaced the windows on the second through fourth floors in 20097 and added an internally lit light-emitting diode (LED) band sign and painted wall signs to the building's exterior. AAU subsequently removed a painted sign on the south-facing façade in 2011. In 2010 and 2011, AAU installed a canopy at the rear of the building, installed a fire sprinkler and alarm system, added walls and doors to the building's interior, and made other minor interior repairs in response to a Notice of Violation (NOV). AAU installed canopy at the rear of the building without building permits. AAU also installed security cameras and flag poles on the ground-level Van Ness Avenue façade without building permits. A canvas awning and security fence were added at the west end of the north elevation without building permits. A replacement metal door roll-up door was installed by AAU at an unknown time. AAU may have installed four rooftop condensing units and two rooftop exhaust fan units without building permits.

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue's use is institutional in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to institutional uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 1849 Van Ness Avenue must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4There are 30 Class II bicycle parking spaces and one Class II public bicycle rack with two spaces is located on the Van Ness Avenue sidewalk.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue does not have a parking garage.
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class 1 space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class 1 space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 1849 Van Ness Avenue in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 1849 Van Ness Avenue is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1849 Van Ness Avenue is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 1849 Van Ness Avenue do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

<table>
<tr><th>Regulation</th><th>Requirements</th><th>Project Compliance</th><th>Remarks</th></tr>
<tr><td>Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]</td><td>Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.

Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.

Carpet - All carpet must meet one of the following:
1. Carpet and Rug Institute Green Label Plus Program,
2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),
3. NSF/ANSI 140 at the Gold level,
4. Scientific Certifications Systems Sustainable Choice, OR
5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database
and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content.

Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5.

Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with:
1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,
2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,
3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR
4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.</td><td>☒ Project Complies

☐ Not Applicable

☐ Project Does Not Comply</td><td>The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.</td></tr>
</table>

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1849 Van Ness Avenue does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1916 Octavia Street, Block 640/Lot 11

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1916 Octavia Street (ES-9) is an existing four-story, 13,171-square-foot building. AAU uses the building as a dormitory (22 rooms/47 beds). The building also has a manager's office, laundry room, study room, and TV room. AAU added a canvas canopy that extends from the street to the main entrance steps; and reroofed the building in 1995. On the interior, AAU upgraded the fire sprinkler system on all floors and installed a new fire alarm system in 2004, added guard rails to various locations for safety, made kitchen improvements, and replaced a bathroom and damaged wall to repair dry rot (no structural work was necessary). AAU added a canvas canopy that extends from the street to the main entrance steps and A a non-structural sign was painted over in 2011 without building permits. A security fence, security cameras, lighting, and an awning on the rear elevation were added without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street's use is student housing in an RH-2 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1916 Octavia Street is required to have five Class I and three Class II bicycle parking spaces per Planning Code Section 155.2.18. There are two bicycle racks providing six Class II bicycle spaces. No Class II bicycle parking spaces are located on the site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	(Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class 1 space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1916 Octavia Street is required to have five Class I and three Class II bicycle parking spaces per Planning Code Section 155.2.18. There are two bicycle racks providing six Class II bicycle spaces. No Class II bicycle parking spaces are located on the site.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street does not provide off-street parking and thus is not subject to Planning Code Section 166.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 1916 Octavia Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 1916 Octavia Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1916 Octavia Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 1916 Octavia Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1916 Octavia Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 950 Van Ness Avenue, Block 718/Lots 17 and 21

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

950 Van Ness Avenue (ES-10) consists of two lots and two connected buildings (50,700 square feet combined) formerly occupied by an automobile dealership. AAU occupied the property in 2009 and established a classic vehicle museum, which is open to the public by appointment only and classic car storage. In addition to the ground-floor classic vehicle museum, several offices are located on the second floor. Classic cars not on display are stored in the basement and on the second floor of 950 Van Ness Avenue. AAU made no exterior changes to the building, except to install two ducts on the roof. AAU refurbished the building in 2009 (painting and interior offices) and added a new ventilation system for the automobile storage areas. Two painted exterior wall signs were removed by AAU in 2010. AAU installed a new fire sprinkler system, fire alarm, and a new intelligent fire alarm control panel in 2011 and 2012. AAU installed an approximately 10-foot-long underground pipe for the fire sprinkler system.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue use is institutional and the site is located in an RH-4 District, and would not include the construction of a new building or addition. Thus not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to institutional uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	Based on the low intensity of use, 950 Van Ness Avenue is not required to provide bicycle parking spaces. No bicycle parking spaces are provided on the site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is used for car storage and does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building and would not add parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 950 Van Ness Avenue in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 950 Van Ness Avenue is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code: Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 950 Van Ness Avenue is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 950 Van Ness Avenue do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 950 Van Ness Avenue is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.) Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	950 Van Ness Avenue does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1153 Bush Street, Block 280/Lot 26

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1153 Bush Street (ES-11) is an existing three-story, 10,456-square-foot building. AAU uses the building as a dormitory (15 rooms/37 beds). Prior to AAU occupation in 1998, the building was used as an apartment building and residential hotel. The building also has an outdoor patio, a half-basketball court, a manager's office, a laundry room, a TV room, and a recreation room. AAU updated bathrooms, and implemented seismic upgrades to the structure in accordance with the Unreinforced Masonry Building ordinance. The backyard was paved for a basketball court, the garage door was replaced, security bars were added to the ground-level windows on the rear and east elevations, and one window was partially in-filled and others were replaced without building permits. AAU added a canvas canopy and non-illuminated canopy sign over the main entrance without a building permit. The sign was later removed in 2013.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street's use is student housing in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1153 Bush Street is required to have 9 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2. 1153 Bush Street has one bicycle rack providing 8 Class II bicycle parking spaces. No Class II bicycle parking spaces are located on the site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street has a one-car parking garage does not have more than 500 automobile spaces.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class 1 space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class 1 space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1153 Bush Street is required to have 9 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2. 1153 Bush Street has one bicycle rack providing 8 Class II bicycle parking spaces. No Class II bicycle parking spaces are located on the site.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The existing building at 1153 Bush Street has less than 10 vehicle parking spaces and would not add 10 or more parking spaces. Thus San Francisco Green Building Code (CalGreen Section 5.106.5.2).
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street has less than 25 vehicle parking spaces and is not required to have any car-share parking spaces.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

<table>
<tr><th>Regulation</th><th>Requirements</th><th>Project Compliance</th><th>Remarks</th></tr>
<tr><td>Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)</td><td>Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards:
1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm.
2. All showers have no more than one showerhead per valve
3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code:
• Non-residential lavatory: ≤0,4 gpm
• Residential lavatory: ≤1.5 gpm
• Kitchen faucet: ≤0.8 gpm
• Metering faucet: ≤0.2 gal/cycle
4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet
5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit
6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.</td><td>☐ Project Complies

☐ Not Applicable

☒ Project Does Not Comply</td><td>Some of 1153 Bush Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.</td></tr>
<tr><td>San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)</td><td>Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption.

Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf

Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals.

See the SFPUC web site for information regarding exemptions to this requirement.
www.sfwater.org/landscape</td><td>☐ Project Complies

☒ Not Applicable

☐ Project Does Not Comply</td><td>1153 Bush Street is an existing building and does not have 500 square feet of new or modified landscaping.</td></tr>
</table>

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 1153 Bush Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing residential building and is not subject to San Francisco Green Building Code: Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1153 Bush Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1153 Bush Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1153 Bush Street is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 1153 Bush Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The wood burning fireplace at 1153 Bush is not used. The hearth has been covered with plywood.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:
Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1080 Bush Street, Block 276/Lot 15

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1080 Bush Street (ES-12) is an existing six-story, 24,528-square-foot building. Prior to AAU occupation in 1999, the site was used as an apartment complex and residential hotel. AAU uses the building as a dormitory (57 rooms/122 beds). The building also has a manager's office, laundry room, and a recreation room. AAU added two signs flanking the entrance, one of which was subsequently removed in 2010. AAU renovated and remodeled apartments and replaced lath and plaster with sheet rock in 1999 as part of its original occupancy. Other interior renovations included the addition of a manager's office, a unisex restroom, and a communal kitchen in 20032005. AAU reroofed the building in 2011. AAU replaced the western ground-level door in 2013 without a building permit.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street's use is student housing in an RC-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1080 Bush Street is required to have 29 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2.18. 1080 Bush Street has no bicycle parking spaces on site.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1080 Bush Street is required to have 29 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2.18. 1080 Bush Street has no bicycle parking spaces on site.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. . For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is not subject to CalGreen Section 5.1.06.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street does not provide off-street parking and thus is not subject to Planning Code Section 166.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 1080 Bush Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 1080 Bush Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1080 Bush Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1080 Bush Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 1080 Bush Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Section 5.504.4 – all sections.) [3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1080 Bush Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 860 Sutter Street, Block 0281/Lot 006

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

860 Sutter Street (ES-13) is an existing six-story, 35,292-square-foot building. Prior to AAU occupation in 2003, the site was used a tourist and residential hotel with 50 group housing rooms and 39 tourist hotel rooms. AAU uses the building as a dormitory (89 rooms/182 beds), where two rooms are occupied by two non-student residents. AAU has made exterior tenant improvements to 860 Sutter Street since it occupied the building in 2003, including installing handrails at the primary entrance (south façade) of the building in 2006, re-roofing and replacing existing windows in 2010, installing security cameras with exterior wiring attached to the south façade of the building, removing a wall sign and signage from the canopy in 2013, installing a fire suppression system in the kitchen in 2014. The signs were installed without permits; all signage was removed in 2011 and 2013. AAU replaced the canopy, and windows on the second through fifth floor, without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

SAN FRANCISCO PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program ~~on [DATE].~~[2].

~~[2] SF Environment, Emergency Ride Home Program Participating Employers, November 2015. Available online at http://www.sfenvironment.org/article/emergency-ride-home/participating-employers. Accessed on November 24, 2015.~~

Regulation	Requirements	Project Compliance	Remarks
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street's use is student housing in an RH-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	860 Sutter Street is required to have 42 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2. 860 Sutter Street does not have any available bicycle parking spaces.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street does not have a parking garage.
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class 1 space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	860 Sutter Street is required to have 42 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2. 860 Sutter Street does not have any available bicycle parking spaces.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. . For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street does not provide off-street parking and thus is not subject to Planning Code Section 166.

Regulation	Requirements	Project Compliance	Remarks
Energy Efficiency Sector			
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 860 Sutter Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 860 Sutter Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	860 Sutter Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 860 Sutter Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street is a residential building and Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 860 Sutter Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[4] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	860 Sutter Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[4] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 817-831 Sutter Street, Block 299/Lot 21

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

817-831 Sutter Street (ES-14) is an existing six-story, 51,990-square-foot building. The building was previously used as a hotel prior to AAU occupation in 2006. AAU uses the building as a dormitory (114 rooms/222 beds). The building also includes a computer lab, a recreation room, and study room. AAU added a sign that covered the original "Commodore" sign over the main entrance; the AAU sign has since been removed. AAU installed a new range fire suppression system, replaced guest room doors with fire-rated doors in response to a Notice of Violation (NOV), reroofed the building, and rerouted the fire sprinkler system. Four aluminum windows were replaced with vinyl windows on the east elevation in 2010 without a building permit being issued. Security cameras were added without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program ~~on [DATE].~~ ~~[2]~~.

~~[2] SF Environment, Emergency Ride Home Program Participating Employers, November 2015. Available online at http://www.sfenvironment.org/article/emergency-ride-home/participating-employers. Accessed on November 24, 2015.~~

Regulation	Requirements	Project Compliance	Remarks
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street's use is student housing in the RH-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	817-831 Sutter Street is required to have 49 Class I and 6 Class II bicycle parking spaces per Planning Code Section 155.2.18. 817-831 Sutter Street does not have any available bicycle parking spaces.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street does not have a parking garage.
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	817-831 Sutter Street is required to have 49 Class I and 6 Class II bicycle parking spaces per Planning Code Section 155.2.18. 817-831 Sutter Street does not have any available bicycle parking spaces.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is not subject to CalGreen Section 5.1.06.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street does not provide off-street parking and thus is not subject to Planning Code Section 166.

Regulation	Requirements	Project Compliance	Remarks
Energy Efficiency Sector			
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 817-831 Sutter Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 817-831 Sutter Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirement for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19) and CalGreen)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 817-831 Sutter Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is a residential building and Enhanced Refrigerant Management (CalGreen Chapter 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

<table>
<tr><th>Regulation</th><th>Requirements</th><th>Project Compliance</th><th>Remarks</th></tr>
<tr><td>Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3]</td><td>Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.

Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.

Carpet - All carpet must meet one of the following:
1. Carpet and Rug Institute Green Label Plus Program,
2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),
3. NSF/ANSI 140 at the Gold level,
4. Scientific Certifications Systems Sustainable Choice, OR
5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database
and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content.

Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5.

Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with:
1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,
2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,
3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR
4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.</td><td>☐ Project Complies

☐ Not Applicable

☒ Project Does Not Comply</td><td>The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 817-831 Sutter Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.</td></tr>
</table>

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[4] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	817-831 Sutter Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[4] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1069 Pine Street, Block 275/Lot 8

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1069 Pine Street (ES-16) is a one-story, 1,875-square-foot building. Its use before AAU occupied the property in 2000 is unknown; however, it may have been a retail store at some point. AAU uses the one-main-room building as a gym. In 2001, the building's front windows were covered over with plywood, and an ADA accessible entrance was added in response to a Notice of Violation (NOV).

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street's use is a postsecondary educational institution in an RM-4 District and would not include the construction of a new building or addition. Thus not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not required to have bicycle parking because the building is below 10,000 square feet. However, it has an existing bicycle rack. Bicycle facilities must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not subject to CalGreen Section 5.1.06.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades. Additionally, San Francisco Green Building Code 4.101, 4.103, and 5.103 does not apply to institutional uses.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The only source of water in the building is one drinking fountain. All other fixtures are not operational.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is less than 10,000 square feet.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1069 Pine Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review..

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d)))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street does not have a refrigeration system or any equipment that contains CFCs.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.) Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1069 Pine Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 1055 Pine Street, Block 275/Lot 9

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

1055 Pine Street (ES-17) is an existing five-story, 36,213-square-foot building. The site was previously used as a residential hotel before AAU occupied the property in 2000. AAU uses the building as a dormitory (81 rooms/155 beds). AAU made changes to the building's exterior including removing a sign and installing a security fence along the south property line in 2000. AAU also installed lighting and painted the AAU logo and "Café Rodin" on the southwest side of building. AAU installed a black security gate in the driveway. In 2003 and 2004, AAU also installed a new fire alarm system and modified an existing partial sprinkler system to full operation. A small awning and bordering light fixtures were installed at the side door of the west elevation without building permits. Security cameras were added without building permits on the primary and secondary elevations.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street's current use is student housing in an RM-4 District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1055 Pine Street is required to have 36 Class I and 5 Class II bicycle parking spaces per Planning Code Section 155.2. 1055 Pine Street has one bicycle rack with 8 Class II bicycle parking spaces, but no Class I bicycle parking space.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	1055 Pine Street is required to have 36 Class I and 5 Class II bicycle parking spaces per Planning Code Section 155.2. 1055 Pine Street has one bicycle rack with 8 Class II bicycle parking spaces, but no Class I bicycle parking space.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street has less than 10 vehicle parking spaces and thus San Francisco Green Building Code (CalGreen Section 5.106.5.2).
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street has less than 25 vehicle parking spaces and is not required to have any car-share parking spaces.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, and 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 1055 Pine Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 1055 Pine Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing residential building and is not subject to San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	1055 Pine Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 1055 Pine Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street is a residential building and Enhanced Refrigerant Management (CalGreen Chapter 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

<table>
<tr><th>Regulation</th><th>Requirements</th><th>Project Compliance</th><th>Remarks</th></tr>
<tr><td>Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]</td><td>Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.

Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.

Carpet - All carpet must meet one of the following:
1. Carpet and Rug Institute Green Label Plus Program,
2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),
3. NSF/ANSI 140 at the Gold level,
4. Scientific Certifications Systems Sustainable Choice, OR
5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database
and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content.

Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5.

Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with:
1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,
2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,
3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR
4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.</td><td>☐ Project Complies

☐ Not Applicable

☒ Project Does Not Comply</td><td>The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 1055 Pine Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.</td></tr>
</table>

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	1055 Pine Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 620 Sutter Street, Block 283/Lot 4A

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

620 Sutter Street (ES-20) is an existing seven-story, 67,775-square-foot building. The site was previously occupied by the San Francisco YWCA and later served as a tourist hotel before AAU occupation in 2005. AAU uses the building as a dormitory (65 rooms/capacity of 129 beds), indoor pool, and fitness gym. AAU replaced a domed canvas canopy over the main entrance without a building permit. AAU obtained a permit for inspection of the fire alarm system and patched holes in a telephone closet. AAU added security cameras and lighting to the first floor of the primary elevation without permits. AAU installed three rooftop condenser units without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street's current use is student housing in the C-3-G District and would not include the construction of a new building or addition. Thus not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to student housing.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	620 Sutter Street is required to have 31 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2.18. 620 Sutter Street does not have any existing bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	620 Sutter Street is required to have 31 Class I and 3 Class II bicycle parking spaces per Planning Code Section 155.2.18. 620 Sutter Street does not have any existing bicycle parking spaces.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is not subject to CalGreen Section 5.1.06.2 because it is an existing building with no available automobile parking.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street does not provide off-street parking and thus is not subject to Planning Code Section 166.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and is not subject to San Francisco Green Building Requirements because it is a residential building and has not undergone major alterations as defined in the San Francisco Green Building Requirements.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is not a commercial building and is not subject to the Commercial Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Some of 620 Sutter Street's water fixtures have been upgraded pursuant to the Residential Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and does not have 500 square feet of new or modified landscaping.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	AAU has implemented some energy conservation measures pursuant to the Residential Energy Conservation Ordinance at 620 Sutter Street. The Department of Building Inspection will review the project's compliance as part of building permit review.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter is a residential building and is not subject to the San Francisco Existing Commercial Buildings Energy Performance Ordinance.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing residential building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing residential building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy, which is only applicable to new commercial buildings.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	620 Sutter Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 620 Sutter Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject to San Francisco Public Works Code Section 806(d).
Construction Site Runoff Pollution Prevention for New Construction	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2 and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street is a residential building and Enhanced Refrigerant Management (CalGreen Chapter 5.508.1.2.3 and 5.508.2) only applies to non-residential buildings.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 620 Sutter Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	620 Sutter Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 491 Post Street, Block 307/Lot 9

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

491 Post Street (ES-23) is a two-story, 37,730-square-foot building. AAU occupied the building in 2002 and uses the former church as an auditorium and for classrooms and offices. At some unknown time, two "First Congregational Church" neon signs and an awning were removed. AAU added a sign over the "First Congregational Church" carving above the main doors on the Post Street façade, then replaced this sign with two canvas banners flanking the pillars at the entrance. AAU also added two free-standing statues to the main façade (legalized with permits in 2011 after an NOV), reroofed the building and installed a new fire sprinkler system for the subbasement and a sprinkler monitoring system in 2011, and removed a wall sign and a free-standing sign in 2013. Metal doors were replaced, and skateboard deterrents and security cameras were added without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street's current use is a postsecondary educational institution in the C-3-G District and would not include the construction of a new building or addition. Thus the project would not not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 491 Post Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 20 Class II bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 491 Post Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project’s compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 491 Post Street is unknown. All available information will be verified during building permit review.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	491 Post Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 491 Post Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 491 Post Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 491 Post Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	491 Post Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 77 New Montgomery Street, Block 3707/Lot 14

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

77 New Montgomery Street (ES-27) is a five-story, 147,509-square-foot building. AAU occupied the former office building in 1996 and uses it for classrooms, labs/art studios, a theater, and a ground-floor gallery. . AAU added four electric blade signs at the building's corners and installed 17 awnings above the ground-floor windows along New Montgomery, Mission, and Jessie streets. In addition, in 2000 AAU reroofed the building, replaced concrete on encased beams, and in 2012 installed a new fire alarm system. AAU painted signs in 2011 and subsequently removed them in 2015. Security cameras were added, a secondary entrance door was installed, and a roll-up door were replaced without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street's current use is a postsecondary educational institution in a C-3-O(SD) District and would not include the construction of a new building or addition. Thus, the project is not subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 77 New Montgomery Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 16 Class II bicycle parking spaces, eight in the basement and four public spaces in front of the building.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street does not have a parking garage.
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces..
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2,and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 77 New Montgomery Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 77 New Montgomery Street is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code, Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 77 New Montgomery Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 77 New Montgomery Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	77 New Montgomery Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 180 New Montgomery Street, Block 3722/Lot 22

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

180 New Montgomery Street (ES-28) is an eight-story, 190,066-square-foot building. Formerly telephone company offices, ES-28 was occupied by AAU in 1995. AAU uses the building to house its library, as well as classrooms, labs/studios, offices, and a café. At an unknown date AAU added three electric blade signs, installed a new fire sprinkler system and made life safety upgrades; demolished and added interior partitions and a new door to a suite in 2010; and remodeled the basement in 2011. AAU obtained a building permit for painted wall signs and subsequently removed the signs in 2013 and 2015 to abate a San Francisco Planning Code (Planning Code) violation. AAU painted an in-filled former storefront panel and added security cameras without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

SAN FRANCISCO PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program ~~on [DATE].~~ ~~[2]~~.

~~[2] SF Environment, Emergency Ride Home Program Participating Employers, November 2015. Available online at http://www.sfenvironment.org/article/emergency-ride-home/participating-employers. Accessed on November 24, 2015.~~

Regulation	Requirements	Project Compliance	Remarks
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street's current use is a postsecondary educational institution in a C-3-O(SD) District and would not include the construction of a new building or addition. Thus not be subject to Planning Code Section 163.
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.

Regulation	Requirements	Project Compliance	Remarks
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 180 New Montgomery Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 16 Class II bicycle parking spaces located near the entrance of the building.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street does not have a parking garage.
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is not a residential building.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code Section 5.103.1.4, CalGreen Sections5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 25,000 square feet, but greater than 10,000 square, and commissioned all energy systems in compliance with CalGreen 5.410. Commissioning compliance will be reviewed as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and is not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 180 New Montgomery Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 180 New Montgomery Street is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 180 New Montgomery Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			

Regulation	Requirements	Project Compliance	Remarks
Street Tree Planting Requirements for New Construction San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code, Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 180 New Montgomery Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections) [3]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 180 New Montgomery Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 4.504.2 - all sections) [4] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31 Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	180 New Montgomery Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[4] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 58-60 Federal Street, Block 3774/Lot 74

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

58-60 Federal Street (ES-30) is an existing five-story, 91,522-square-foot building constructed in 1912. AAU occupied ES-30 in 2002 and uses the former office building for studios, a frame shop, prop room, and archival room. AAU has changed the use from office to postsecondary educational institution. AAU painted a sign on the building's primary façade and logos on the garage door that have since been removed. AAU installed life safety upgrades and corrected wooden step risers in two rooms to provide seismic restraints to movable partitions in 2011, and installed a new fire sprinkler and a fire alarm system in 2013 and 2014. AAU added security cameras without building permits.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

SAN FRANCISCO
PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street's use is a postsecondary educational institution in an MUO District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 58-60 Federal Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 36 Class II bicycle parking spaces in the basement. .
Bicycle parking in parking garages (San Francisco Planning Code Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street's parking garage provides 37 off-street automobile parking spaces, and does not have more than 500 automobile spaces.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.

Regulation	Requirements	Project Compliance	Remarks
Commercial Water Conservation Ordinance (San Francisco Building Code Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 58-60 Federal Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street completes annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For new nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 58-60 Federal Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			

Regulation	Requirements	Project Compliance	Remarks
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and has not had an addition of 20 percent or more of gross floor area as identified in San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 58-60 Federal Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 58-60 Federal Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 601 Brannan Street, Block 3785/Lot 132

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

601 Brannan Street (ES-31) is a two-story, 73,666-square-foot building. 601 Brannan Street originally consisted of two separate structures (one made of brick and the other of metal), which were joined and renovated for office use. AAU occupied the building in 2007 and uses ES-31 for classrooms, a library, labs/studios, and a furniture and model shop. Outdoor recreation facilities are also provided at 601 Brannan. In 2010 these facilities included a basketball court and batting cages; current facilities include a basketball court and batting cages.. AAU reroofed the building in 2009 and installed a fire alarm, made life safety upgrades, and installed furnaces and performed duct work on the first floor in 2010. AAU remodeled interior space to include a café and painted an AAU logo on the side of the building in 2011; removed signs except those at ground level in 2013. AAU painted an AAU logo on the side of the building without a building permit in 2011, and removed signs exept those at ground level in 2013. AAU installed a basketball court, batting cages, and an AAU shuttle waiting area at some unknown date without building permits.

B. COMPLIANCE CHECKLIST TABLE:

---

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the “Remarks” column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco’s Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

SAN FRANCISCO PLANNING DEPARTMENT

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street's current use is a postsecondary educational institution in an SALI District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 601 Brannan Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 60 Class II bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Sections Code 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 25,000 square feet, but greater than 10,000 square, and commissioned all energy systems in compliance with CalGreen 5.410. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 601 Brannan Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 77 New Montgomery Street is unknown. All available information will be verified during building permit review.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.

Regulation	Requirements	Project Compliance	Remarks
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	601 Brannan Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 601 Brannan Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
(San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 601 Brannan Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 601 Brannan Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	601 Brannan Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 460 Townsend Street, Block 3785/Lot 23

Standard to be met (Select one)[1]**:** Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

460 Townsend Street (ES-33) is an two-story, 25,920-square-foot building. The building had been used as a wholesale facility before AAU's tenancy. AAU occupied the site in 2009 and uses ES-33 for classrooms, lab/studios, and offices. AAU added security cameras without a building permit. On the interior, AAU built full-height partitions and installed fire alarms and sprinklers and upgraded the system, upgraded bathrooms, and made additional required life-safety upgrades all in 2010 and 2011.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street's current use is a postsecondary educational institution in a WMUO District and would not include the construction of a new building or addition. Thus the project would not be subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 460 Townsend Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 5 Class II bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Section 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is not subject to CalGreen Section 5.106.5.22 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code, Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 460 Townsend Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 77 New Montgomery Street is unknown. All available information will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For new nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	58-60 Federal Street is an existing building and is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as the requirements only apply to new construction projects.
Renewable Energy			
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	460 Townsend Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 460 Townsend Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements for New Construction.

Regulation	Requirements	Project Compliance	Remarks
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.
Enhanced Refrigerant Management (CalGreen Section 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 460 Townsend Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2] Cont	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 460 Townsend Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	460 Townsend Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

SAN FRANCISCO
PLANNING DEPARTMENT

Compliance Checklist Table for Greenhouse Gas Analysis:

Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION:

Date: May 4, 2016

Project name: Academy of Art Existing Sites Technical Memo **Case No**: 2008.0586E

Project address and block and lot: 466 Townsend Street, Block 3785/Lot 5

Standard to be met (Select one)[1]: Not Applicable

Compliance Checklist Prepared By: Ian Todd, Turnstone/SWCA **Date:** May 4, 2016

Brief Project Description:

466 Townsend Street (ES-34) is a three-story, 113,436-square-foot building. The building had been used as data center/telecommunications facility before AAU's tenancy in 2005. AAU uses ES-34 for classrooms, labs/studios, acting stages, and offices. AAU upgraded the fire protection system, installed a new air handler and ductwork, painted and subsequently removed exterior wall signs, made seismic upgrades, and filled in exterior windows. AAU installed a metal vent hood on an in-filled entry on the south elevation without a building permit.

B. COMPLIANCE CHECKLIST TABLE:

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (Continued on next page)

[1] Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Compliance	Remarks
Transportation Sector			
Commuter Benefits Ordinance (San Francisco Environment Code Section 427)	All employers of 20 or more employees nationwide must provide at least one of the following benefit programs: (1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or (3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU offers a commuter benefits program that complies with the Commuter Benefits Ordinance. In addition, employees may utilize the AAU Campus Shuttle Service.
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has registered with the Emergency Ride Home Program.
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street's current use is a postsecondary educational institution in a WMUO District and would not include the construction of a new building or addition. Thus the project is not subject to Planning Code Section 163.

Regulation	Requirements	Project Compliance	Remarks
Transportation Sustainability Fee (San Francisco Planning Code Section 411A)	Establishes citywide fees for all new development. Fees based on a proportion of the gross area of the project based on the type of use. Fees are paid to the Department of Building Inspection and provided to the San Francisco Municipal Transportation Agency to improve local transit services.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Upon issuance of the building permit for the change in use, the Transportation Sustainability Fee would be paid by AAU.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment. The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The Jobs-Housing Linkage Program is not applicable to postsecondary educational institution uses.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use. Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 and CalGreen 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Bicycle facilities at 58-60 Federal Street must be designed, located and configured in compliance with Planning Code Section 155.1 through 155.4. There are currently 20 Class UU bicycle parking spaces.
Bicycle parking in parking garages (San Francisco Planning Code, Section 155.2)	(C) Garages with more than 500 automobile spaces shall provide 25 spaces plus one additional space for every 40 automobile spaces over 500 spaces, up to a maximum of 50 bicycle parking spaces. Where parking capacity is increased by 10 or more spaces, CalGreen 5.106.4 applies.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street does not have a parking garage.

Regulation	Requirements	Project Compliance	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	Class I Bicycle Parking Spaces: (A) For projects up to 100 dwelling units, one Class I space for every 2 dwelling units; or (B) For projects over 100 dwelling units, one Class I space per for every dwelling unit plus one Class I space for every four dwelling units over 100 dwelling units. Class II Bicycle Parking Spaces: One Class II space for every 20 dwelling units.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is not a residential building.
San Francisco Green Building Requirements for Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.106.5 and CalGreen Sections 5.106.5.2)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. Mark 8% of parking stalls for such vehicles. For non-residential additions and interior alterations to existing buildings, the regulation applies for projects that would add 10 or more parking spaces to the project site.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is not subject to CalGreen Section 5.106.5.2 because it is an existing building and would not add 10 or more parking spaces.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is not a residential building and thus Planning Code Section 166 is not applicable.
Energy Efficiency Sector			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code Sections 4.101, 4.103, 5.103)	Demonstrate compliance with Title 24 Part 6 (2013) Energy Standards, and additionally meet energy efficiency prerequisites of the applicable green building rating system: • GreenPoint Rated: demonstrate a 10% compliance margin • LEED for Homes (including midrise): demonstrate a 10% compliance margin • LEED BD+C 2009: No compliance margin requirement.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building that has not undergone renovations to areas greater than 25,000 square feet that included major structural, mechanical, or plumbing upgrades.
San Francisco Green Building Requirements: Commissioning of Building Energy and Water Systems (LEED EA3, San Francisco Green Building Code Section 5.103.1.4, CalGreen Sections 5.410.2 and 5.410.4)	New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems. • New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – SFGBC 5.103.1.4 and CalGreen 5.410.) • Non-residential new buildings and alterations <25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen 5.410) • Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen 5.410.4) • New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	AAU has undergone alterations less than 10,000 square feet and completed testing and adjusting of energy systems in compliance with CalGreen 5.410.4. Commissioning compliance will be reviewed as part of building permit review.
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2, CalGreen Sections 4.303.1, 5.303.2, and 5.303.6)	All new buildings must comply with current CA water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current CA and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally: • New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and not subject to San Francisco Green Building Code Sections 4.103.2.2 and 5.103.1.2; and CalGreen Sections 4.303.1, 5.303.2, and 5.303.6 because it has not undergone alterations greater than 25,000 square feet.
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	Requires all alterations to existing commercial properties to achieve the following: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	All water leaks have been repaired. However, AAU has not implemented other water conservation measures at 466 Townsend Street in accordance with the Commercial Water Conservation Ordinance. The Department of Building Inspection will review the project's compliance as part of building permit review.

Regulation	Requirements	Project Compliance	Remarks
Residential Water Conservation Ordinance (San Francisco Building Code, Housing Code, Chapter 12A)	Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. If showerheads have a maximum flow > 2.5 gallons per minute (gpm), replace with ≤2.0 gpm. 2. All showers have no more than one showerhead per valve 3. If faucets and faucet aerators have a maximum flow rate > 2.2 gpm, replace with unit meeting current code: • Non-residential lavatory: ≤0,4 gpm • Residential lavatory: ≤1.5 gpm • Kitchen faucet: ≤0.8 gpm • Metering faucet: ≤0.2 gal/cycle 4. If toilets have a maximum rated water consumption >1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet 5. If urinals have a maximum flow rate >1.0 gpf, replace with ≤0.5 gpf unit 6. Repair all water leaks. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is not a residential building and is not subject to the Residential Water Conservation Ordinance.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code Chapter 63)	Projects that include 500 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. Tier 1: 1,000 sf <= project's modified landscape < 2,500 sf Tier 2: (A) New project landscape area is greater than or equal to 500 sf or; (B) the project's modified landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals. See the SFPUC web site for information regarding exemptions to this requirement. www.sfwater.org/landscape	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street does not have 500 square feet or more of new or modified landscaping and thus is not subject to the San Francisco Water Efficient Irrigation Ordinance.

Regulation	Requirements	Project Compliance	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable: • attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner. • Maximum required expenditure: $1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable. Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is not a residential building and is not subject to the Residential Energy Conservation Ordinance.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	Owners of nonresidential buildings in San Francisco with ≥10,000 square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with annual energy auditing requirements per the San Francisco Existing Commercial Buildings Energy Performance Ordinance at 466 Townsend Street is unknown. All available information will be verified during building permit review.
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Table 5.106.8.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building is not subject to California Code of Regulations Part 6 or CalGreen Section 5.106.8, as requirements only apply to new construction projects.
Renewable Energy			

Regulation	Requirements	Project Compliance	Remarks
San Francisco Green Building Code Requirements for Renewable Energy (San Francisco Green Building Code Section 5.103.1.5)	New commercial buildings of ≥25,000 square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and is not subject to the San Francisco Green Building Code Requirements for Renewable Energy.
Waste Reduction Sector			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19) All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen 5.410.1)	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	466 Townsend Street provides separate refuse containers for recyclables, compostables, and trash in compliance with the Mandatory Recycling and Composting Ordinance.
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials. Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	Compliance with the San Francisco Construction and Demolition Debris Recovery Ordinance during past alterations at 466 Townsend Street is unknown. Any available information regarding the disposal of construction debris will be verified during building permit review.

Regulation	Requirements	Project Compliance	Remarks
San Francisco Construction and demolition debris recycling requirements (San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and is not subject to San Francisco Green Building Code Sections 5.103.1.3 and 4.103.2.3.
Environment/Conservation Sector			
Street Tree Planting Requirements for New Construction (San Francisco Public Works Code Section 806(d))	Public Works Code Section 806(d) require projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and has not had an addition of 20 percent or more of gross floor area. Therefore, the building is not subject San Francisco Public Works Code Section 806(d). Therefore, the building is not subject to Street Tree Planting Requirements.
Construction Site Runoff Pollution Prevention for New Construction (San Francisco Public Works Code Article 4.2)	Construction Site Runoff Pollution Prevention requirements depend upon project size, occupancy, and the location in areas served by combined or separate sewer systems. Any project disturbing ≥5,000 square feet of ground surface is required to submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and details the use, location, and emplacement of the sediment and erosion control devices at the project site. All construction sites, regardless of size, must implement BMP's to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see www.sfwater.org.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street is an existing building and AAU alterations have not disturbed 5,000 square feet of ground surface.

Regulation	Requirements	Project Compliance	Remarks
Enhanced Refrigerant Management (CalGreen Sections 5.508.1.2, and 5.508.2)	Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations. New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All HVAC, refrigeration, and fire suppression systems at 466 Townsend Street do not contain CFCs or halons, if installed after January 1, 2010 (EPA phase out of CFCs).

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[2]	Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program, 2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350), 3. NSF/ANSI 140 at the Gold level, 4. Scientific Certifications Systems Sustainable Choice, OR 5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive & carpet pad adhesive must not exceed 50 g/L VOC content. Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Table 5.504.4.5. Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program, 2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1, 3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR 4. Certified under the Greenguard Children & Schools Program to comply with California Department of Public Health criteria.	☐ Project Complies ☐ Not Applicable ☒ Project Does Not Comply	The use of materials in compliance with CalGreen Section 5.504.4 et seq. during past alterations at 466 Townsend Street is unknown. Any available information regarding the use of adhesives, sealants, calks, and paints and coatings will be verified during building permit review.

[2] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

Regulation	Requirements	Project Compliance	Remarks
Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen Sections 5.504.4 – all sections.)[3] Cont.	Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details. Aerosol paints and coatings - Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520) Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2 Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Table 4.504.5		
Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3111.3; CalGreen Sections 4.503.1 and 5.503.1)	Bans the installation of wood burning fire places (except those that are designed for food preparation in new or existing restaurants or bakeries) except for direct-vent or sealed combustion units compliant with EPA Phase II limits (CalGreen 4.503.1 and 5.503.1) and at least one of the following: • Pellet-fueled wood heater • EPA approved wood heater • Wood heater approved by the Northern Sonoma Air Pollution Control District	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	466 Townsend Street does not have a wood-burning fireplace and is not subject to the Wood Burning Fireplace Ordinance.

[3] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.